Healthy Eating For Better Living

A Caribbean Handbook

A Publication of the
Caribbean Food and Nutrition Institute (CFNI)

HEALTHY EATING FOR BETTER LIVING

A Caribbean Handbook

A Handbook on Good Nutrition and Healthy Eating for People Living with HIV/AIDS

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Caribbean Food and Nutrition Institute (CFNI)

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Preface

The number of persons testing positive for HIV in the Caribbean is increasing every year and shows no sign of abating. HIV/AIDS threatens to undo the spectacular gains in health we have made in the region over the last several decades. This disease can take a tremendous toll on the body as wasting and loss of lean body tissue are common. Currently HIV/AIDS cannot be cured, but aggressive nutritional support can help to extend life and contribute to its quality. It is equally important to prolong and care for the lives of persons living with the virus as it is to prevent infection in those without it.

The challenge for policy makers is to decrease the spread of HIV infection while continuing to provide care for those who are already HIV-positive or living with AIDS. Nutritional support is conspicuous by its absence in current approaches to comprehensive care in the region. This absence deprives persons with HIV of the opportunity to strengthen their immune system, improve the effectiveness of drug treatment and, importantly, delay the progression of AIDS. The major objective of this handbook is to provide caregivers and persons living with HIV/AIDS with the basic tools for nutritional care, and help to redress the long-standing imbalance so notable in the care of persons with HIV/AIDS in the Caribbean.

Fitzroy Henry
Director, CFNI

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The Caribbean Food and Nutrition Institute

Introduction

Healthy eating is a necessary part of healthy living and good nutrition is important for everyone. For those who are infected with the Human Immunodeficiency Virus (HIV), good nutrition is especially important. Adequate amounts of calories, protein and other nutrients in the diet are needed to help the immune system cope with the stress of the virus as well as the stress of the many opportunistic infections related to AIDS.

Good nutrition can help in other ways such as limiting other symptoms related to HIV/AIDS including weight loss, tiredness and malnutrition.

If you have been diagnosed with HIV/AIDS, you are most likely receiving a lot of information about issues like nutrition, diet and nutritional supplements. Some issues related to HIV and good nutrition can be confusing and some of the information you are getting might be more confusing or even contradictory.

This Handbook has been developed to help you sort out what you need to know about nutrition, how to eat healthily and why it is so important to keep yourself well nourished. This Handbook is also designed to give you and those who are caring for you, accurate and up-to-date information about healthy eating and nutrition. There is a special section on how to cope with problems related to HIV and AIDS. In addition, we have included a section that highlights the needs of infants and children living with HIV/AIDS.

We hope the information can help you make the right decisions about healthy eating.

We have tried to present the principles of good nutrition in an easy-to-read fashion, for the times when you are well, and the times when you may not be feeling well enough to eat properly. In this Handbook, we have tried to cover all the basics and give you facts that will help you make informed decisions.

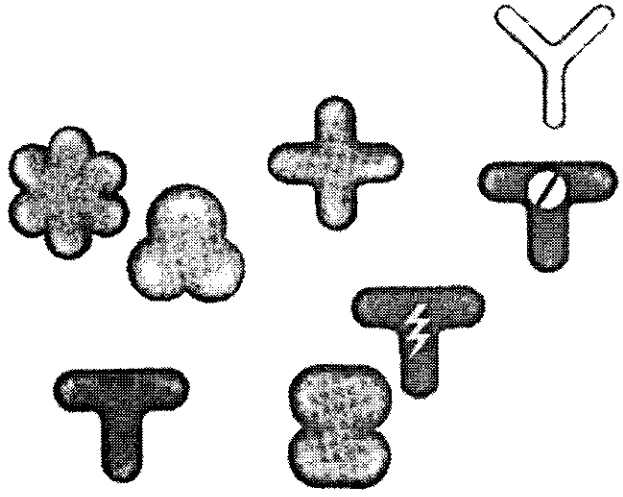
You will find information about how HIV and AIDS affect your immune system and your body. If your appetite or your normal eating habits change, suggestions are given to help you manage some common nutrition-related problems that may occur. We have also included some practical hygiene and food safety tips. There are also recipes to help you make nutritious and delicious food you will enjoy eating. These have been tested, tasted and approved by people living with HIV/AIDS. The more you know about healthy eating, the more you are able to manage your own lifestyle and have the best possible quality of life. Since you will probably hear unfamiliar words and terms related to HIV/AIDS, we have included a Glossary at the back.

This Handbook is not intended to be used as a substitute for professional medical or nutritional treatment that you may be receiving or could receive. Nevertheless, we hope you will find this Handbook helpful as a quick reference on nutrition and healthy eating.

If you have questions or need more information, do not hesitate to consult with a nutrition professional or doctor.

1

About HIV, AIDS and Your Immune System



1 About HIV, AIDS and Your Immune System

HIV is not the same as AIDS.

Proper treatment of HIV can slow the onset of AIDS.

There is no cure for AIDS.

Anyone can contract HIV and AIDS.

The letters **HIV** stand for **Human Immunodeficiency Virus**. This is a germ that affects only humans and causes the immune system to weaken. When this happens, it is harder for your body to fight germs/viruses and protect you from infections as it should. It is important that your immune system works properly.

HIV can result in a condition known as AIDS. These letters stand for **Acquired Immune Deficiency Syndrome**. This is the final or advanced stage of HIV infection. AIDS is referred to as a syndrome because there are a number of diseases, conditions and infections that can cause problems to a person with AIDS.

Not everyone who is HIV-positive develops AIDS. It is not known why a person who is HIV-positive develops AIDS while another person does not.

Treatment of HIV and AIDS is focused on slowing down the progression of the disease, controlling the symptoms and taking steps to ensure the best possible quality of life.

Your Immune System and How It Works

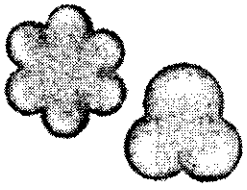
The immune system is your body's natural way of protecting you against germs. The immune system is made up of different kinds of white blood cells. Each type has a different role to play in fighting germs and stopping infections.

It may be easier to think of this system and how it works as a play that we will call *The Immune System*. The play has a cast consisting of seven characters, each with a different role.

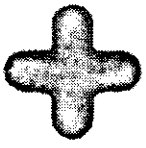
The PLAY

Who are the characters?

The characters are the different cells that make up the immune system. These are:



1. *Macrophages and Neutrophils* – They are white blood cells in the immune system. They are big and strong, but not very smart. They cruise around the body, looking for any kind of germs. When they find them, they surround and trap them.



2. *Natural Killers* – They are white blood cells that are loners. They don't act with the other characters of the immune system but they too roam the body constantly on the lookout for germs, and blow up any that they find.

3. *T4 Helpers* – They are the main players and the stars of the play. Smart and skilful, the T4 helpers are white blood cells that organize a way to get rid of germs, telling the other white cells what to do to get rid of the germs.

4. *T8 Killers* – Like macrophages, they are white blood cells that roam the body looking for germs to kill. But T8 killer cells are more skilful and know exactly which type of germs they are looking for.

5. *B Cells* – They are the factories of the immune system. They produce chemicals called antibodies, which can recognize germs and stick to them. They make them easier to kill.

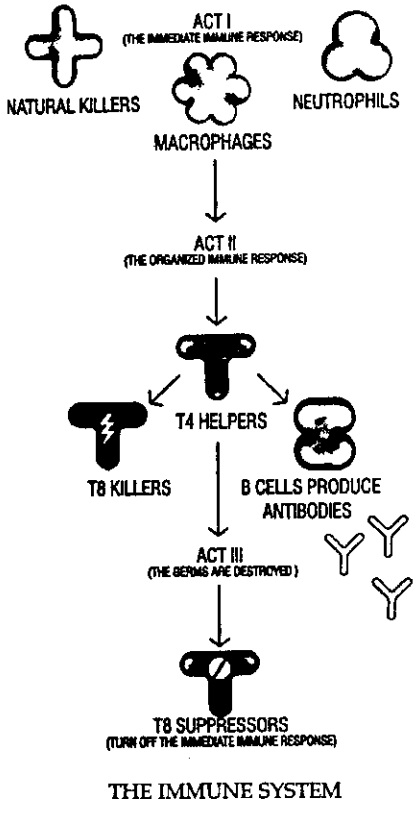
6. *Antibodies* – They are the chemicals made in B cell factories that recognize germs and stick to them. They provide lasting protection against specific germs.

7. *T8 Suppressors* – They are the calmest characters in the play. The T8 suppressors tell the other cells to relax when all germs have been killed.

The PLOT

What is the Plot?

The plot is the way the cells work together to fight infection. This begins when germs get into the body and the healthy immune system goes to work right away.



THE IMMUNE SYSTEM

Act I – The Immediate Immune Response

Natural killers, constantly roaming through the body, bump into germs. They surround them and blow them up. Macrophages and neutrophils also roam the body, trapping any germs they bump into. However macrophages, neutrophils and natural killers kill only a small fraction of germs. They need help.

Act II – The Organized Immune Response

Act II begins when macrophages signal T4 helpers that they need help. The characters communicate with each other. Macrophages hold up pieces of germs they have killed so that T4 helpers can see them.

The T4 helpers can now recognize germs the macrophages have killed, and they organize the other characters to attack the germs. The T4 helpers tell the T8 killers to go and look for those types of germs and destroy them.

At the same time, T4 helpers tell B cells to produce antibodies – special chemicals that stick to specific germs. This is done for two reasons. Firstly, when the antibodies stick to germs, it is easier for macrophages to trap them. Secondly, the antibodies themselves kill germs by breaking them into pieces.

Act III – The Germs are Destroyed

When most of the germs have been killed, the T4 helpers still have one final job. They alert the T8 suppressors to slowly shut off the immune response. This play ends happily when the germs are destroyed and the infection is beaten off.

What Happens Inside You When You Have HIV?

In the original play, the infection is destroyed by the healthy immune system but when you have HIV, the plot changes and the ending is not always predictable.

HIV cannot live for a long time on its own. It must find a cell to infect so it can survive. Unlike most viruses, HIV infects the cells of the immune system. These are the same cells that are supposed to fight infection.

HIV attacks the macrophages and T4 helpers, hides inside the macrophages and uses its energy to reproduce itself.

HIV also infects and kills many of the T4 helpers. When this happens, the other cells of the organised immune system become disorganised resulting in a breakdown of normal communicaton among cells. Now they can no longer fight infection properly.

Once HIV infects your macrophages and T4 helper cells, it can hide inside them for many years, and during this time, you may not have any outward signs of HIV infection.

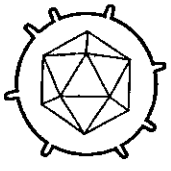
Why Does HIV Infection Lead to AIDS?

People living with HIV/AIDS get what is called "Opportunistic infections". These are infections that take advantage of the body's weakened immune system.

No one knows for sure why HIV leads to AIDS. One reason may be that HIV is activated when the body is attacked by other infections. When macrophages find germs in a person without HIV, they show pieces of them to T4 helpers, which signals them to go into action to fight the germs. When T4 helpers are activated in an infected person, the HIV inside them may begin to multiply quickly. As more and more viruses are produced, it is believed that they kill the T4 helpers before they can organize the other cells of the immune system to fight infection.

Most of the T4 helpers eventually die, and instead of being destroyed, infections thrive inside the HIV-positive person.

Where is the Virus Found?



People who are HIV-positive have the virus in amounts that can range from small quantities to large infectious quantities in most of their body fluids. Table 1 shows the degree to which the virus is present in the various body fluids.

How Does the Virus Spread?

The virus cannot live in the air. It is spread from an infected person to another only through one of the following routes as stated in Table 2.

TABLE 1: THE VIRUS IN SELECTED BODY FLUIDS

Presence of virus	Type of body fluids
Infectious amounts	• Blood and blood products (most concentrated) • Semen and potentially pre-ejaculatory fluid, also called pre-cum • Vagina and cervix • Breastmilk
Significant amounts	• Amniotic fluid around the foetus/ unborn child • Cerebrospinal fluid around the brain and spinal cord • Synovial fluid around the joints of bones
Small amounts	• Tears and blister fluid • Saliva in some people • Urine • Faeces • Vomit

TABLE 2: SPREAD OF THE VIRUS

Routes:	How:
• **Infected blood or blood products**	Contaminated needles, blood transfusion, labour and birth, and infrequently by contact with an open cut or plasma splashed into the eyes or inside the nose
• **Semen fluid**	Unprotected oral, vaginal or anal sexual intercourse
• **Vaginal fluid**	Labour and birth; unprotected oral, vaginal or anal sexual intercourse
• **Un-heat-treated breast- milk**	Whether fed directly from the breast or cup, breastmilk that is not heat-treated can give the virus to the infant
• **Cerebrospinal fluid** • **Synovial fluid** • **Amniotic fluid**	During surgery to doctors and other health-care workers

How Do You Know If You Have HIV?

Normally, when you have an infection, your body makes antibodies to fight the infection. After you get better, the antibodies stay in your blood to protect you from another infection. This protection is incomplete in the case of persons with HIV. The infection continues although there are antibodies in your blood.

You will find out if you are HIV positive after you take the appropriate test(s) that will find the antibodies to HIV in your

blood, and not of the virus itself. A positive result means that the antibody has been found and you are HIV infected. A positive result will not tell you how long you have been infected. It also does not tell you that you have AIDS, nor can it predict when AIDS will occur.

If you have tested positive, you will fall into one of two groups:

1) **Asymptomatic HIV positive,** that is you are not having any symptoms and/or showing any signs of the infection; OR
2) **Symptomatic HIV positive,** that is you are having symptoms and/or showing signs of the infection.

Symptoms

There are many symptoms associated with HIV and AIDS. Some symptoms are found only in cases of HIV and AIDS and others are common to most viral infections. They include a dry cough, shortness of breath and flu-like symptoms. Some people with HIV or AIDS may experience loss of appetite, difficulty swallowing, fever, sore throat or swelling of lymph glands at two or more sites. Abdominal pain, persistent unexplained diarrhoea and unexpected weight loss may also be among the symptoms.

Treatment

Treatment starts after you get your test results. If you are HIV positive, your treatment will include many important parts to ensure the best quality of life. One important part is your diet that should include the right balance of healthy foods. Good nutrition is essential to help your body cope with what is happening inside of you.

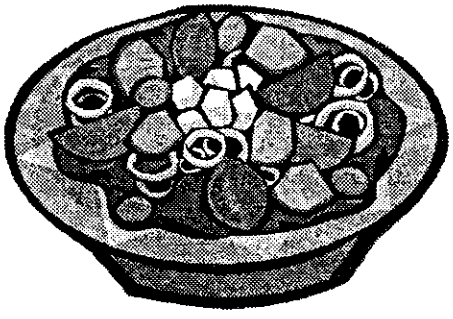
2

What is Good Nutrition?

2 What is Good Nutrition?

Good nutrition and healthy eating can help to maintain and improve the performance of your immune system. Keeping this system strong is especially important when you are infected with HIV, because you are more at risk for other infections when your immune system is weakened by HIV.

The food you eat affects how your immune system works. You can help your body and your immune system fight off infection by making healthy food choices.



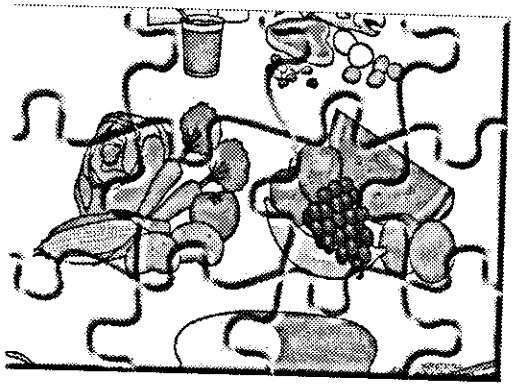
Unfortunately, eating properly cannot cure HIV infection. There is no cure for HIV infection and AIDS – at least not yet.

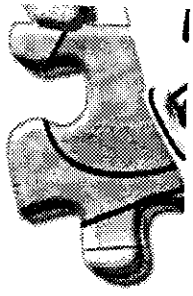
Nutrition Basics

The benefits your body gets from your diet, that is, the food you eat and drink, is referred to as nutrition. Food provides nutrients: *proteins, fats, carbohydrates, vitamins, minerals* and *water.* Proteins are the building blocks of our bodies. Fats and carbohydrates provide energy. Vitamins and minerals help put the building blocks in place and release the energy. Safe drinking water helps the body remove waste nutrients from the food and

helps to prevent water-borne infections. We need at least 50 nutrients every day to stay healthy. Normally, we can get all these nutrients from the foods we eat.

The immune system uses specific nutrients working together to fight infection. People living with HIV need more of these specific nutrients for their immune system, and more energy to maintain their body weight and muscles. We'll talk more about that in the next chapter.





No single food provides all the nutrients. Each nutrient is like a piece of a puzzle, and when you put all the pieces together, you create the complete picture.

Proteins: Proteins are the building blocks of all muscles and organs like the lungs, heart and liver. They are also needed by the immune system to maintain it in good working order.

Fats and Carbohydrates: Fats and carbohydrates provide the body with energy and are found in most of the foods that make up a healthy diet. They give your body the energy to build and run the immune system. If you do not eat enough fats and carbohydrates, the body turns to protein to get energy, robbing your muscles and immune system of the protein they need to keep themselves strong. Your muscles begin to waste away and your immune system becomes weakened, leaving you more exposed to infection.

Vitamins and Minerals: Vitamins and minerals are needed to release the energy from food but they are not themselves a source of energy. They are also needed for the smooth functioning of the immune system and thus they help it to work well.

Water: Water helps the digestion process and makes it easier for the body to extract nutrients from the food you eat. It is

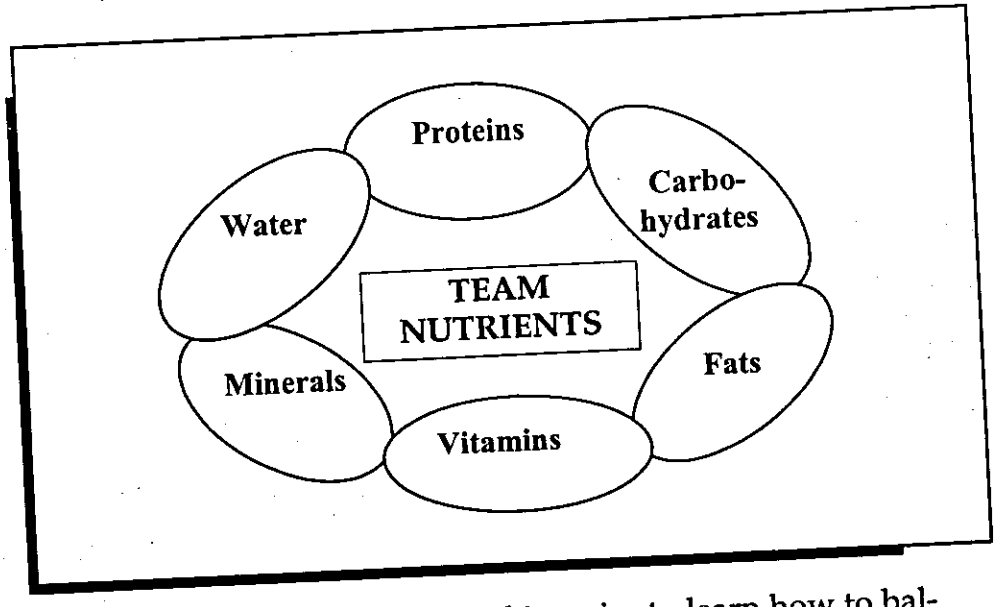
If your immune system does not have enough of one nutrient, it will not function efficiently.

important to ensure that the water you drink is safe and does not contain harmful bacteria and parasites.

Nutrients Work as a Team

Proteins, fats, carbohydrates, vitamins, minerals and water depend on each other just like members of a team. If your immune system does not have enough of one nutrient, it cannot function efficiently even if it has more than enough of the others.

You need a proper balance of nutrients every day to maintain a well-nourished body. Finding a balance in your eating habits doesn't come naturally. It has to be learned, just like you learned to find your balance and keep it as you learned to walk when you were an infant.



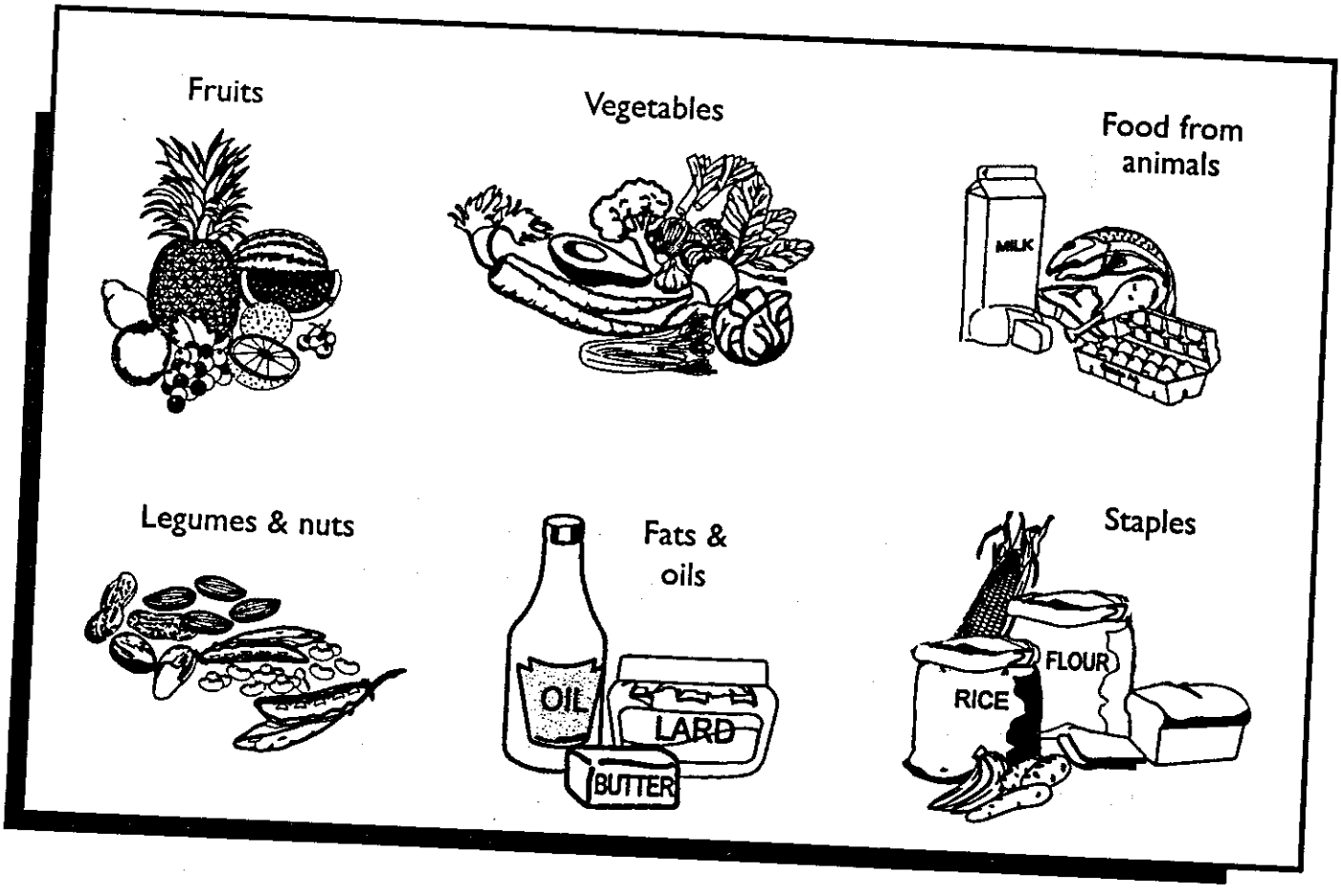
HIV-positive people have found it easier to learn how to balance their diet when they are asymptomatic. During this period, you may be able to slow the onset of AIDS by changing your eating habits.

Start now rather than waiting until you begin to feel any of the symptoms.

Healthy Food Choices

You need to eat a variety of food from the Six Food Groups to get the range of nutrients that your body needs. Appendix I, *Unravelling the Nutrients*, gives you an idea of the main nutrients provided by each food group and food examples for each group. Mix your food choices every day and aim for variety. The Six Food Groups guide is simple and very practical for you to use every day. It will help you with making your choices for healthy eating. Appendix III is a colourful picture that shows these groups using a pie chart which can also be seen as a plate.

Caribbean Six Food Groups



Healthy Eating Plan

You need food from all the groups

Most of the nutrients you need will come from food that you will find in the six food groups. Healthy eating means using food from each group every day. For example, orange juice contains a lot of Vitamin C, like many other foods in the vegetable and fruit groups. Milk contains a lot of calcium as do milk products. There is not much calcium in orange juice and little Vitamin C in milk. You can also get some calcium from legumes and some vegetables. Every food group is different and important for different reasons. Eating too much of one will not make up for eating too little of another.

Variety is important

We need food from all the groups and we need to eat a variety of foods within each group. Variety is important because all the foods within the same group do not have exactly the same nutrients.

Eating is one of life's great pleasures, so enjoy it.

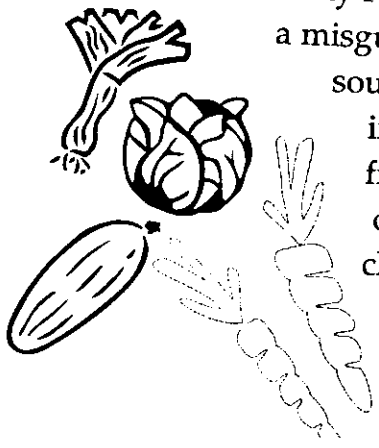
There is room for all foods in a healthy eating plan. Enjoy all foods without feeling guilty. Just make sure you are getting enough of the nutrients you need. Your priority is to eat foods that provide as much protein and energy as you can. Eggs, cheese, dried peas, beans and meat are all important nutrient-rich foods.

Keep in the nutrients

Healthy eating is more than making healthy choices and aiming for variety. When preparing your food, make sure that you keep in as many of the nutrients as possible. Cook your foods well but do not overcook them or else you lose a lot of the much needed nutrients. How you store your food is also important. See Chapter 6 for some details.

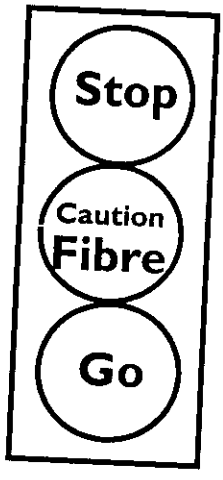
Vegetarian Way of Life

Vegetarian eating plan



Many HIV-positive people decide not to eat meat because of a misguided notion that meat is unhealthy. Foods from animal sources contain the best, most easily digested protein. Also, iron, an important nutrient for you, is best absorbed from meat. While it is possible to make healthy food choices without eating meat, being a vegetarian has its challenges.

To get the same amount of energy and protein, you have to eat more. It takes one cup of cooked dried peas or beans to get about the same amount of protein as in one ounce of meat. If you are symptomatic, you will have to eat even more.



Use fibre with caution

With the vegetarian eating guide, you may take in more dietary fibre, and this can affect your body in many ways. For instance, it can make you feel full after eating very little. If your appetite is poor, you may not be able to eat all that you need. On the other hand, a high-fibre eating plan may cause digestive difficulties and may increase diarrhoea, which is a problem for almost everyone with HIV.

Legumes are a good meat alternative

If you don't eat meat, you may use dairy products and non-meat protein foods. Legumes – dried peas, beans and fresh peas – are good inexpensive sources of protein. It is important to note that although fibre helps to firm up your stools, there are some other things you should know.

Legumes are also filling, and this can be a problem when you have a small appetite.

Firstly, the protein in legumes is not complete but it is not difficult to complete it. One way is to eat legumes with other cereal grains like rice, pasta, flour, oats, seeds or nuts. Another way is to eat legumes with some eggs or a dairy product. Secondly, the iron in legumes needs a little help from foods containing Vitamin C to increase its absorption. You'll find a list of Vitamin C-rich foods in Appendix II.

Legumes are also filling, and this can be a problem when you have a small appetite.

Legumes are not generally "quick-cooking" foods. Some of them need to be soaked, then simmered for about one hour before they are ready for eating. Fortunately, some legumes are now available in cans. Although these are a little bit more expensive, they are convenient. In fact, these can easily be called fast foods.

3

What Does Nutrition Have To Do With HIV/AIDS?

3 What Does Nutrition Have to do With HIV/AIDS?

Why Is Good Nutrition So Important?

Eating enough of a variety of healthy food is important for everyone. It is even more important when you are diagnosed with HIV because you are at a greater risk of developing health problems if you do not eat properly. Eating the right amount and type of food from the Six Caribbean Food Groups will help to prevent weight loss and tiredness. This balance will also improve the way you feel.

Although you may not be experiencing any symptoms related to HIV, the sooner you begin to pay attention to your diet, the better equipped you will be to fight some of the infections and other illnesses that you may develop. You may also avoid or delay the onset of nutrient deficiencies that can further affect your immune system.

If you are asymptomatic HIV-positive, you may be able to slow the onset of AIDS by improving your eating habits.

If you are symptomatic HIV-positive, you can improve your quality of life by following a pattern of eating that makes you feel stronger.

Good nutrition is therefore essential to:

- replace lost nutrients;
- prevent tiredness, weight loss and malnutrition;
- improve the functioning of your immune system, and your body's ability to fight infection;

- improve the way you feel and look;
- improve your strength, endurance and ability to respond well;
- improve response to treatment including prescribed or over-the-counter medicines and drugs;
- decrease the risk of opportunistic infections;
- shorten the length of hospital stays;
- help you with gaining or keeping your body weight;
- promote independence;
- provide as good a quality of life as is possible.

The sooner you begin to pay attention to your diet, the better your chances will be in fighting infections and illnesses that may develop.

What Happens If You Don't Eat Well

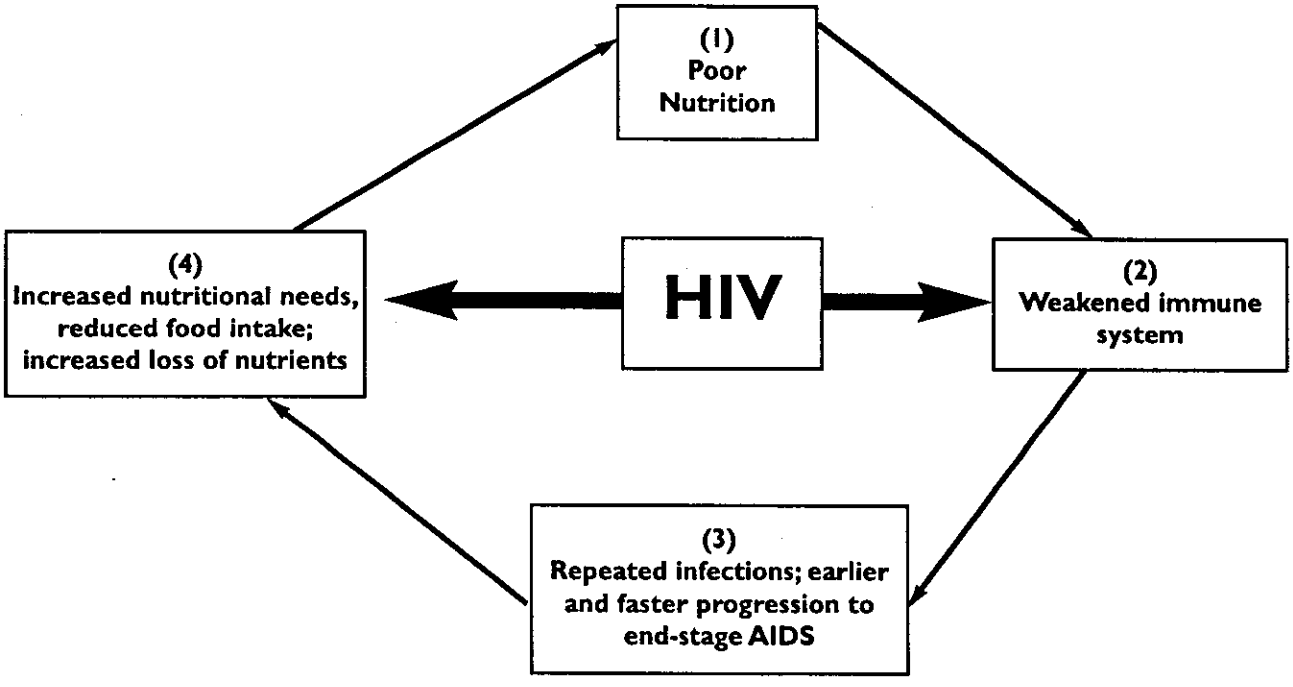
The relationship between HIV/AIDS and poor nutrition is cyclical. This means that in the development of the disease, one problem worsens the other and so on. The diagram on the next page shows the **Cycle of HIV/AIDS and Poor Nutrition**:

(1) Poor nutrition contributes to **(2) a weakened immune system** thus reducing your body's ability to fight HIV and other infections. As a result, you are more at risk for **(3) repeated infections plus earlier and faster progression to end-stage AIDS**. This state of poor health has **(4) increased nutritional needs** but with a **reduced food intake and increased loss of nutrients**, poor nutrition results, and so the cycle continues.

HIV / AIDS increases nutritional needs

- The virus itself has an effect on the nutrition of the person living with HIV/AIDS. The body reacts to the virus with an immune response which uses more energy and nutrients.

FIGURE 1: THE CYCLE OF HIV / AIDS AND POOR NUTRITION



- When the immune system is weakened by HIV/AIDS, other infections start to occur and every new infection increases the need for nutrients and energy.
- Worrying about the disease leads to high anxiety, which further weakens the immune system. Certain nutrients are necessary to boost the immune system and the need for these is higher during periods of stress.

HIV / AIDS lowers food intake

- Infections and illness lead to poor appetite.
- Mouth and throat infections cause difficulties with eating.
- Some medicines affect your sense of taste.

- Both the expense of treatment and the inability to work affect income, which means less money available for food.
- Depression, fear and anxiety contribute to the loss of appetite.
- Isolation may result from social prejudice against people with HIV/AIDS. Because eating food is a social event, loneliness lowers appetite.
- In the late stages of the disease, people with HIV/AIDS may find it difficult to cook for, and take care of themselves.

HIV / AIDS causes physical problems

- The lining of the digestive system breaks down due to HIV and other infections, affecting its ability to digest and absorb food.
- This inability to absorb nutrients from food is called malabsorption.
- The result of malabsorption is diarrhoea that causes loss of water and nutrients from the body.

These are some of the factors that cause poor nutrition and weight loss in people with HIV/AIDS. Poor nutrition itself leads to poor absorption and a weakening of the immune system, which gives the virus a chance to multiply, and so the cycle goes on. Poor nutrition also leads to a decreased ability of the body to cope with the medicines a person with HIV/AIDS has to take.

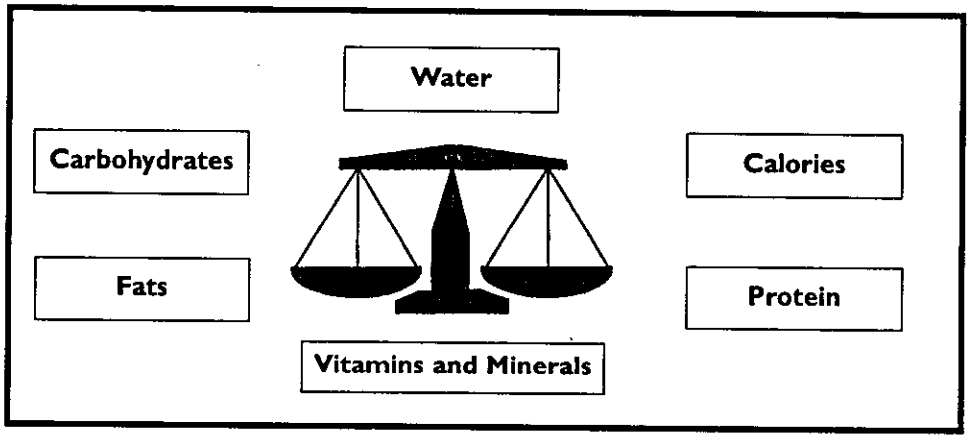
4

Planning A Healthy Diet

4 Planning a Healthy Diet

What You Need for a Healthy Diet

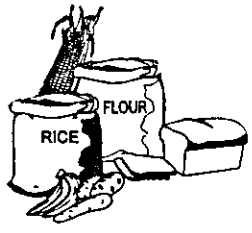
Your nutritional needs will vary during the different stages of HIV. Your specific needs will also depend on other factors, such as your medical treatment and lifestyle. No matter what your specific needs, balancing your food choices is important to ensure that you are getting enough of each of the six nutrients, and enough calories.



Calories are not nutrients. They are a measure of the amount of energy that you get only from carbohydrates, protein and fats. You need enough calories to provide you with the fuel or energy your body needs for its activities, even during sleep. The amount of calories you need depends on the condition of your health at the time of infection, the speed at which the disease gets worse, the complications that can affect your food intake and the body's use of the nutrients. For example, fever and infection will increase your energy needs.

Protein is needed in adequate amounts to prevent your muscles from weakening. Together with calories, protein helps to maintain your body weight. The amount you will need depends on your body weight and whether you have any infections. It is possible that your protein needs will be higher than what is recommended for someone who does not have HIV or AIDS, or even higher than the average recommended for someone living with HIV or AIDS.

Fats provide twice as much energy as carbohydrates or protein. Your nutrition and diet counsellor can advise you about how much fat, and what type of fat, you should include in your daily diet.



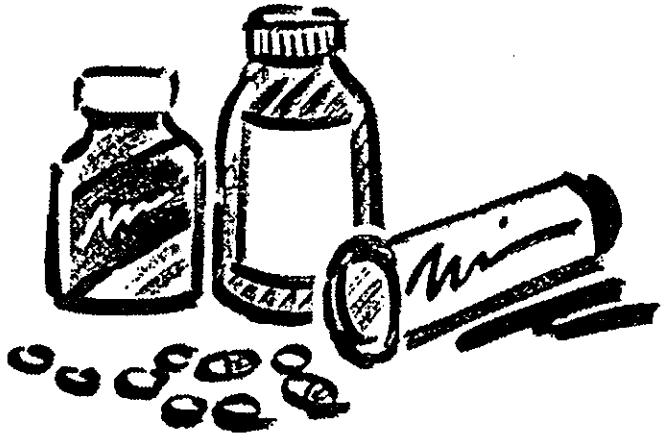
Carbohydrates are a main source of energy and are made up primarily of starches and sugars. Along with fats, they are known for their role in sparing proteins. In other words, carbohydrates prevent protein from being used as energy. Their presence ensures that the body will use protein for its vital body-building, maintenance, growth and protection functions.

Vitamins and minerals are needed for a variety of functions. They do not function alone. Rather, they work along with proteins, fats and carbohydrates. Requirements vary. Your doctor may prescribe a vitamin supplement in the event of infection or if your body is not absorbing nutrients well. You may need supplements of beta carotene (Vitamin A), Vitamins – B_2 (riboflavin), B_6 (pyridoxine), E, C and folic acid. **Over-dosing is not recommended and has not been proven to be of any benefit.**

Water is essential. Keep up your intake. You will need to take extra fluid if you have severe diarrhoea, vomiting, night sweats or fever because your body will be losing more water than normal. Make sure that the water is safe to drink. If there is any doubt, boil it for five minutes.

It is important to remember:

- A vitamin-mineral supplement could be helpful.
- Read the label to make sure the dosage is not more than 150% of your Recommended Dietary Allowances (RDA).
- More is not better – more than 200% of the RDA can cause nausea, vomiting, decreased appetite, liver and kidney problems.
- Too much Vitamin A, selenium, zinc and iron may weaken the immune system.
- There is no known benefit from using vitamins labelled "natural" instead of synthetic brands.
- Vitamin and mineral supplements are not a substitute for food.
- It is best to take vitamin and mineral supplements with meals.



How To Get Started

The best eating plan begins when you decide to eat for your health. You should begin counselling sessions as soon as possible with a professional dietitian or nutritionist. Tips For Planning a Healthy Diet (Table 3) will help until such time.

TABLE 3: TIPS FOR PLANNING A HEALTHY DIET

Guidelines	What to do?
Begin now	• Pay special attention to your diet as soon as you are diagnosed. Waiting could make the effects of the virus worse. You may need some professional help.
Choose your own food	• Eat familiar and favourite foods. • Eat more food, but try to keep your choices healthy.
Eat a variety of foods each day from the Six Food Groups. No single food has all the nutrients you need. Remember, variety is the spice of life.	• Make staple foods the basis of each meal. • Eat fruits and vegetables every day. • Eat dried peas and beans regularly, as tolerated. • Include some foods from animals daily. • Use fats and oils in moderation. • Choose different coloured foods for attractive meals. • Try different seasonings and spices.

Continues

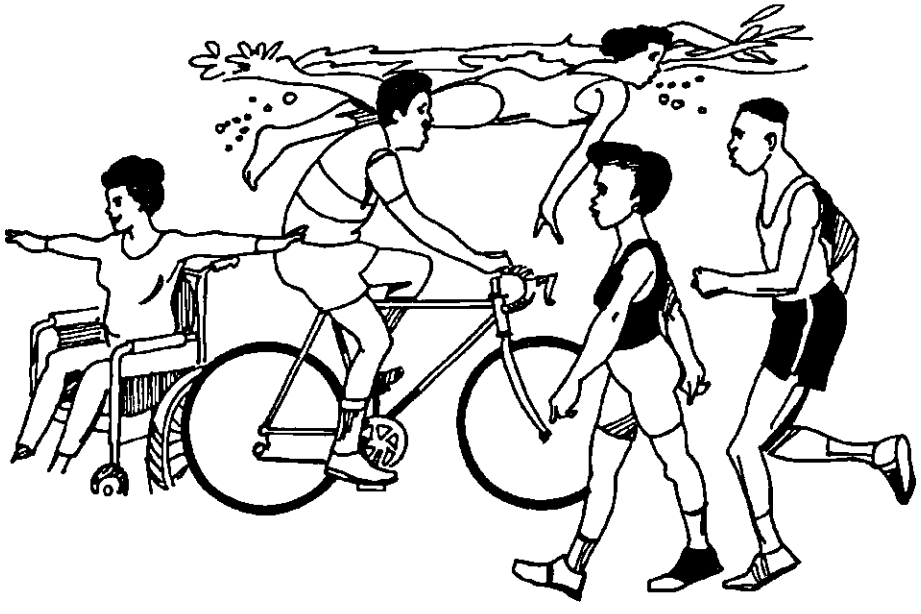
TABLE 3: TIPS FOR PLANNING A HEALTHY DIET (cont'd)

Guidelines	What to do?
Drink lots of fluids	• Drink clean water from safe sources. • Boil and cool water for drinking or making juices.
Eat smaller meals more often	• Eat four or more times a day. • Eat meals in a pleasant atmosphere with people you like.
Pay close attention to what you are eating and to things that affect your eating habits	• Keep a diary to record your eating habits and health in general or ask someone close to you to keep a record. • Make changes gradually. It's hard to change everything at once.
Be as active as you can be	• Help with tasks around the house. • Take a walk or stroll outdoors.
Hold back the alcohol	• Drink only limited amounts or no alcoholic drinks.

5

Keeping Healthy:

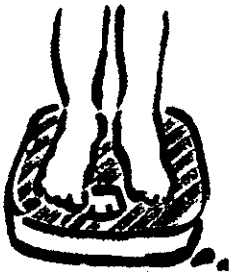
People with HIV have special needs



5 Keeping Healthy:

People with HIV have special needs

Maintaining a Healthy Weight



Weight loss is common among HIV-positive people and usually occurs as a result of infections. When you are underweight, your ability to fight infection is weakened.

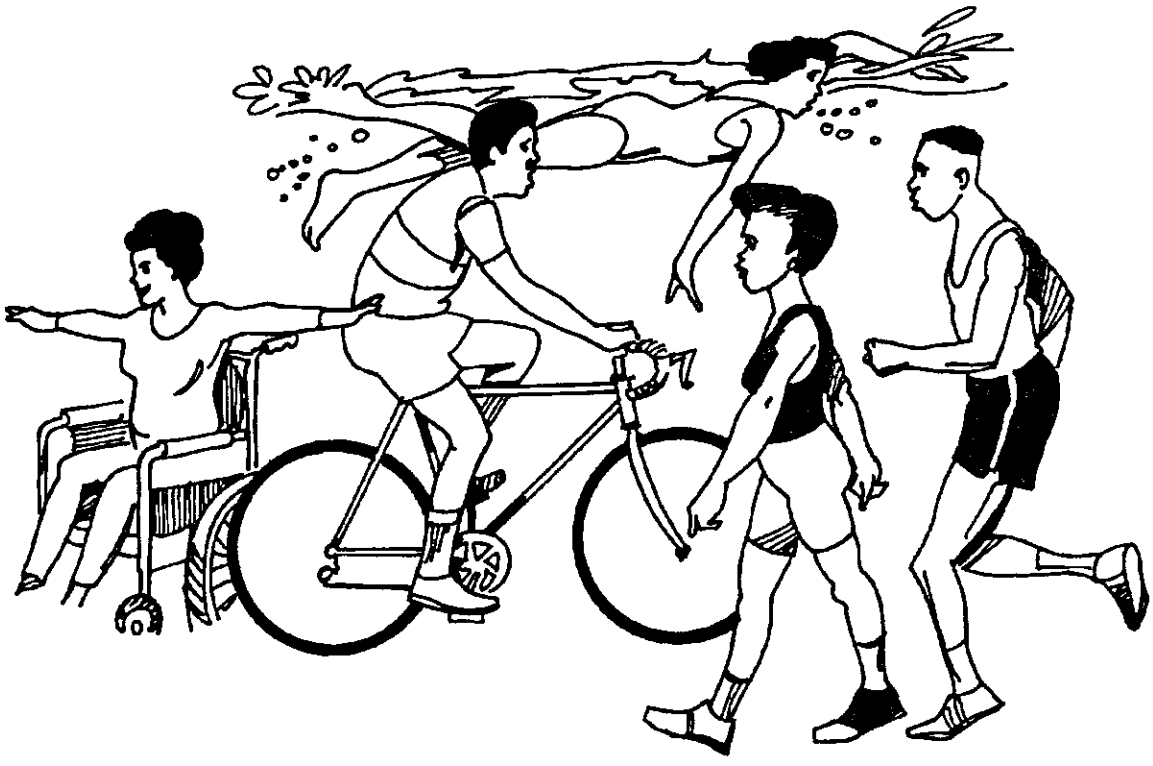
Maintaining a healthy weight is especially important when you are HIV-positive. If you find out that you are underweight, try to gain some weight.

When your appetite is good, go for large-size servings of food.

It is a good idea to mount a picture of the Caribbean Six Food Groups on a wall or on your refrigerator, and check it daily to make sure you are eating from each food group.

Getting Regular Exercise

Regular exercise is important to keep you healthy. Exercise strengthens your muscles which help to strengthen your immune system. Exercise is the only way to build muscle, and this is your body's way of storing protein. If you want or need to gain weight, then along with eating more, you also have to exercise. If you don't, the extra calories you eat become fat, and



this is not very helpful, because what you really need to resist infections is stored protein.

Exercise also increases your appetite and your sense of personal well-being. So it's as good for the spirit as it is for the body. If you are not getting regular exercise, make an effort to do so. Your goal should be to develop your muscles through a resistance exercise programme.

It's tough to exercise when you are tired or experiencing different physical difficulties. You may want to consult an advisor who can help you develop an activity programme that suits you.

It's tough to exercise when you are tired or experiencing different physical difficulties. You may want to consult an advisor who can help you develop an activity programme that suits you. Regular activity is as important to your long-term health as regular eating.

Keep Up Your Appetite

Even though you know you should eat, sometimes you just don't feel like it. There are tricks to stimulating your appetite.

Treat yourself well

Cook some of your favourite foods and meals, the ones you used to love before you got infected with HIV. Go for a walk or to the market, grocery or shop to pick up something special to eat. Keep a place in your kitchen to store these special favourite foods so that you have something special to eat when you want it.

Make every meal special

Make your food look nice and appetizing. Make several different things so that if you don't feel like eating one thing, you have another choice that you may like. Use spices and flavoring to make your food tasty. Try to eat with friends and family and make mealtimes special occasions.

Nibble, if it works for you

If you have difficulty sitting down for your main meals, eat many small meals and snacks during the day. **REMEMBER TO USE THE NUTRITIOUS FOODS YOU NEED EVERY DAY.**

Where to Find the Nutrients you Need

You have already read in Chapter 3 how important it is to eat nutritious foods every day. You also need a healthy diet using a variety of foods from the Caribbean Food Groups. Some foods are rich in nutrients that are important to your immune system. Table 4 gives some examples of these nutrients and the foods that contain them.

TABLE 4: NUTRIENTS FOR THE IMMUNE SYSTEM

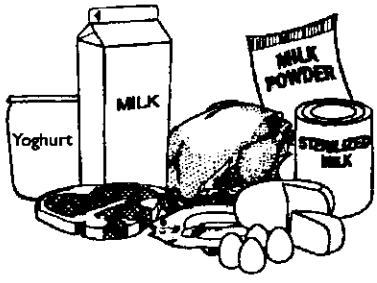
Nutrients	Purpose	Examples of Food Sources
Proteins 	Make the immune system strong	*Food from animals:* meats including organ meats like liver, kidney, heart, tripe; rabbit, "wild" meat, poultry (chicken/fowl, duck); fish, eggs and dairy products (milk, milk powder, buttermilk, yoghurt). *Some plant foods* like peanut and peanut butter, and other nuts; legumes like pigeon peas, channa/chick peas, red/kidney beans, lentils, split peas, black eye peas, soya beans, tofu.
Vitamins help to support the immune system and keep the linings of the lungs and the gut healthy. This makes it more difficult for germs to enter the body and cause infections. Fresh fruits, vegetables and pure fruit juices (not fruit-flavoured drinks) are the best sources of a number of vitamins. Overcooking destroys vitamins, and vegetables lose their vitamins if they are soaked in water for a long time. Legumes also lose their vitamins if baking soda is added to the water during soaking.		
Vitamin A	Growth and function of T and B cells for immunity; keeps the linings of the skin, lungs and gut healthy. *(During infections, there is an increased loss of Vitamin A from the body.)*	Dark green, yellow, orange and red fruits and vegetables: – spinach, broccoli, calalloo/dasheen leaves, green/sweet/bell peppers other "greens" – pumpkin, squash, carrots, pawpaw/papaya, cantaloupe, mangoes; – beets Other foods: liver, butter, fortified margarine, cheese, eggs, yellow sweet potatoes.
Vitamin B_6 	Maintains a healthy immune system and nervous system; helps to make red blood cells. *(Lost with some medicines used in the treatment of tuberculosis.)*	Meat, fish, chicken, watermelon, corn, broccoli, green leafy vegetables, white beans, potatoes, whole grain cereals, nuts, avocadoes.

TABLE 4: NUTRIENTS FOR THE IMMUNE SYSTEM cont'd

Nutrients	Purpose	Examples of Food Sources
Vitamin C 	Helps with recovery from infections; helps with iron absorption.	*Citrus fruits:* oranges, grapefruit, lemon, portugals, tangerines, ortaniques; Other fruits like guavas, mangoes, West Indian/garden cherries; vegetables like tomatoes, cabbage, broccoli, green/sweet/bell peppers.
Minerals – are an important group of nutrients that have a variety of functions. Minerals yield no energy in the human body, but they help to regulate the release of energy. Two minerals for special mention are . . .		
Selenium	Helps to activate the available T-cells.	*Whole grain foods* like whole wheat bread, bran flakes; *dairy products* like milk, yoghurt and cheese; *protein-rich foods* like meat, seafood, liver, poultry and eggs; *legumes* – dried beans, nuts and peanut butter.
Zinc	Reinforces the immune system; helps with digestion; carries Vitamin A.	Meat, fish, poultry, shellfish, whole grain cereals, beans, peanuts, eggs, milk and other dairy products.

Flavonoids and **phytosterols** are natural substances found in fruits and vegetables, but are not nutrients. They are now known to play an important role in helping the immune system and in the prevention of cancer and other diseases. *Flavonoids* are found in citrus fruits, apples, berries, red grapes (also grape juice), carrots, onions, broccoli, cabbage, cauliflower, Brussel sprouts, peppers and green(not black) tea. *Phytosterols* are found in a large number of foods. Eating a variety of fruits and vegetables will ensure a good intake. Seafood, peas, nuts, sunflower seeds, sesame seeds and whole grains are particularly good sources.

How to Power-pack Your Diet

Sometimes you may need to "power-pack" your diet. That means increasing the calories or nutritional value of what you eat without necessarily eating bigger amounts of food.

☞ *Tips on how to get extra energy*

Dried fruits	• Eat as a snack or add to dessert. • Add to breads, cakes, home-made cookies, cold or hot porridge and other cereals. • Mix with nuts, granola or dried cereal and use as a snack. • Add to salads. • Add to cooked rice with or without vegetables.
Sugar	• Add to cereal, milk or milk drinks, fruit or yoghurt, as tolerated. • Make caramel popcorn sometimes.
Jams and jellies	• Spread on bread and baked goods along with butter, margarine or peanut butter.
Margarine, vegetable oil and butter	• Add to food during or after cooking. • Use to fry or sauté foods, as tolerated. • Eat with meals or snacks as often as possible. • Spread margarine or butter on bread, crackers, biscuits and other baked goods. Add it to porridge, rice, vegetables and pasta (macaroni, noodles, spaghetti, etc,) • Add extra butter or margarine to hot popcorn.

Continues

☞ Tips on how to get extra energy *(cont'd)*

Commercial Mayonnaise or salad dressing	• Add to salads, e.g. most provisions, pasta, vegetables like peas and carrots. • Combine with cold cooked meat, fish or eggs to make a paste, salad or to add flavor. • Spread on sandwiches, bread, crackers and biscuits.
Ice cream or whipped cream	• Scoop onto baked desserts, cakes, flavored gelatin, pudding, custard and fresh fruit. • Drink milkshakes.

☞ Tips on how to get extra protein

Meat, fish and poultry	• Chop and add to vegetables, salads, soups or sauce/gravy. • Add to scrambled eggs or omelettes, quiche or sandwich fillings.
Cooked eggs	• Chop or slice hard-cooked eggs and add to salads, vegetables, mashed potatoes, green figs/bananas, breadfruit or other provision. • Try adding extra egg white to scrambled eggs, custard and puddings.

Continues

☞ Tips on how to get extra protein (cont'd)

Milk or Soy powder	• Add low-fat milk or soy powder to regular milk to make "double-strength milk" (See page 98). Chill well before drinking for a better flavor. • Use double-strength milk in cooking and for milk-based drinks. • Use milk instead of water in cereal, soup, porridge, tea, cocoa and coffee. • Add "double-strength" milk to flour mixture when making baked goods, roti, Johnny cakes, breads or dumplings. • Use whole/full cream or evaporated milk instead of water in cooking wherever possible.
Cheese	• Sprinkle on cooked vegetables, salads, cooked meats, poultry and fish. • Eat with fresh fruit. • Eat with bread, biscuits, crackers, sweet breads or buns as part of a meal or snack.

When Healthy Eating is Not Enough

No matter how well you try to follow your eating plan, you may find that you are just not eating enough to maintain your weight or to regain weight you have lost. You want to eat but for any number of reasons you may have difficulty eating the amount of food that you need.

If you cannot eat enough food, you need to look for other ways to get your nutrition. You may need to supplement your normal intake with vitamin and mineral pills or with nourishing fluids taken at regular intervals.

Extra Vitamins and Minerals

Before you take extra vitamins and/or minerals as a supplement, you need to be assessed by a doctor or a registered dietitian who will study your medical history and other information about your lifestyle. This is important because, like medicines, vitamin and mineral pills or tonic can be poisonous (toxic) if not taken properly.

Multivitamins do not replace healthy food choices, which contain protein, energy, vitamins and minerals. Vitamins and minerals help release the energy from food but are not themselves a source of energy. Without protein and the other main nutrients, vitamins and minerals don't mean much. Most of them will be excreted and the money spent could be wasted. So whether you take pills or not, you still have to eat.

What do good multivitamin/mineral pills contain?

1. Minerals – iron, zinc, copper and selenium.
2. Vitamin A – 6000 (International Units [I.U.]) or less. Don't take more because it can build up in the liver and become poisonous.
3. Vitamin B_6 – 25 milligrams (mg) or less.
4. Folacin (also called folic acid) – 400 microgram (mcg/ug) or less.

Your doctor or dietitian/nutritionist may suggest that you supplement your diet with vitamin and mineral pills or tonic.

Liquid Food Supplements

Food substitutes and supplements can either be homemade or any one of the commercial food substitutes like Boost®, Ensure®, Enterex®, Resource®, Advera® , Lipisorb® and similar products sold in pharmacies and some food shops, and are usually available in powdered or liquid form. They are not magic potions but are, in fact, made from regular foods with extra vitamins and minerals added. If you use commercial supplements, try to vary your selection of flavours to avoid getting tired of the same taste. You may need professional guidance from a nutrition expert.

Can food substitutes help you gain weight?

To gain weight, you have to eat more food than the amount you need. To gain one pound, you need to eat 3,500 more calories than your body uses. On average, one glass of liquid commercial food substitute contains 250 calories. You would have to drink 2 glasses a day, in addition to your regular meals, to add 500 calories to your diet. At that rate, to gain one pound, you would have to drink 2 glasses a day for 7 days without skipping any meals.

Unless you get these substitutes for free, it is a very expensive way to gain weight. You might also find that drinking food substitutes takes away your appetite for solid food and that, at the end of the day, you haven't eaten very much. If this happens, it is not very helpful to take commercial food substitutes.

You can make your own supplements

If you have a blender, you can make your own supplements. Try the recipes for Hearty Drinks that you will find in Chapter 10. They are easy to make and have been given a stamp of approval for taste by HIV-positive people. You can also experiment with similar ingredients to make your own power-shakes.

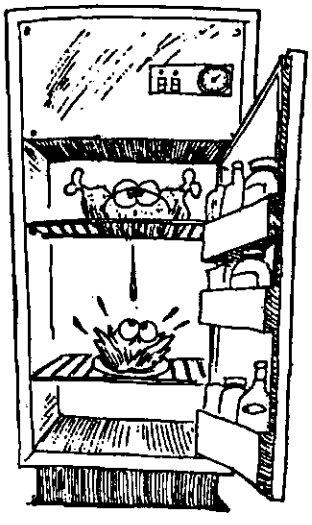
Other Feeding Options

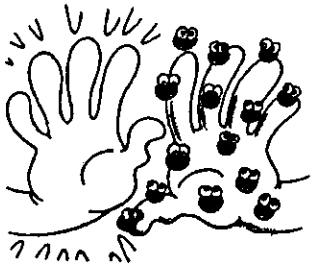
Some people have so much difficulty eating that they cannot even drink supplements. They may need to be fed using a tube passed through the nose (nasogastric tube feeding) or through the stomach (gastrostomy tube feeding). With proper care and advice, you can feed yourself at home by either of these methods. Another method is to be fed through a vein (parenteral nutrition).

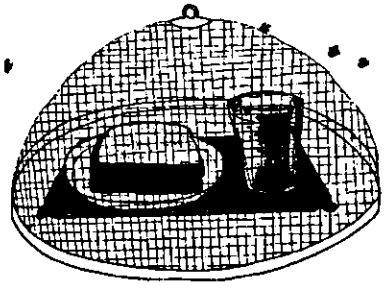
See your doctor for advice and guidance about feeding by any of these methods. Stay in touch with your doctor, nurse or dietitian who can guide you.

6

Food Safety and Hygiene







6 Food Safety and Hygiene

Food Poisoning and HIV

Every year, many people get sick from eating contaminated food that contains harmful germs. Most of them recover quickly, but for people with a weakened immune system, like those with HIV, food poisoning is very dangerous. It can cause diarrhoea, nausea, vomiting, abdominal pain, cramps and other symptoms. It can even be a threat to your life.

Food safety is easy. Mostly, it is just common sense. It involves knowing what foods not to eat and knowing how to prepare and store food properly.

These are important things to know because eating safely prevents illness and can even save your life. Don't rely on your senses of sight, smell or taste to protect you from spoiled food. Unfortunately, it is almost impossible to tell if food has been contaminated just by looking at it, smelling it or tasting it.

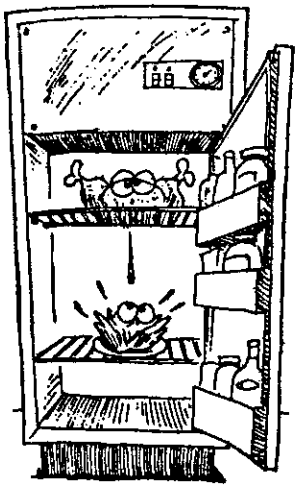
Buying Food Safely

Eating safely begins when you buy the food. Don't buy from shops or markets that look unclean. Take your groceries home right after shopping and store them in a refrigerator, freezer or cool place.

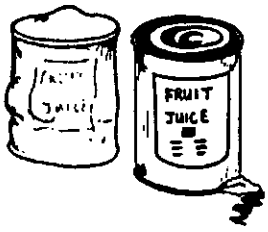
The Basic Rules

- Keep cold food cold and hot food hot.
- Avoid contact between raw and cooked food.
- Meat, poultry, fish and eggs should be cooked until well done.
- Do not eat raw eggs, meat, seafood or fish.
- Wash all fresh fruit and vegetables before cooking or eating them.
- Make sure the water you use is safe for drinking.
- If you are not sure where food comes from or how it has been prepared, it is safer not to eat it. If you have any doubt, do not eat it.
- When in doubt, throw it out.
- Always wash your hands with soap and clean water before touching your food.

Fresh meat, poultry, seafood and fish

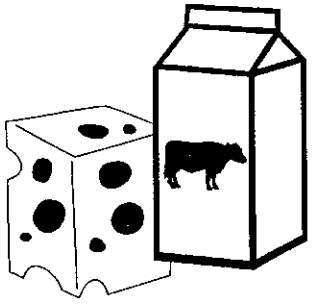


- Buy your foods in amounts that can be eaten before they spoil. It is sometimes cheaper to buy food in bulk, but without a fridge or freezer for safe storage this is not a good idea.
- When you buy raw meat or poultry, put them in a separate plastic bag or container so that the drippings don't contaminate other food.
- If unwrapped cooked meat is touching unwrapped raw food, don't buy it. The bacteria from one could contaminate the other.



- Look for the "best before" or "packaged on" date on the package. The fresher the food the better. It is not safe to buy or eat foods that have been sitting on a shelf for a long time or after they have expired.
- Do not use canned food if the can bulges or if it is dented or leaking. Do not be tempted by discounts on damaged cans.

Dairy products



- Make sure you buy only pasteurized milk and cheese made with pasteurized milk. The pasteurizing process kills harmful bacteria. Look for the word "Pasteurized" on the label.
- Always check the date on the package. The fresher, the better.
- It is not safe to drink raw (unpasteurised) milk. Boil before using.
- Throw away moldy cheese. Cutting off the moldy part of the cheese is not good enough.
- Avoid cheeses made from unpasteurized milk because they may contain harmful bacteria.
- Avoid blue-veined and soft cheeses like Brie and Camembert which contain live molds. They are not considered safe for people with HIV/AIDS.

Eggs

- Buy only refrigerated eggs that are clean and without cracks.
- Always check the "expiry" or "best before" date.

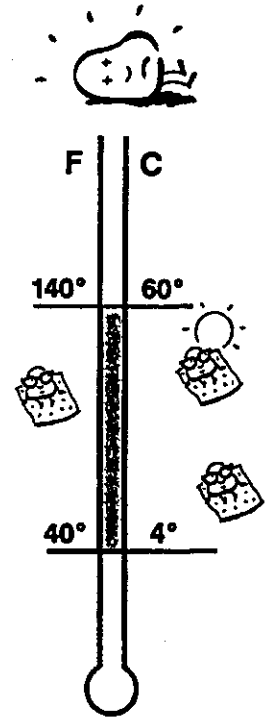
Vegetables and fruits

- It is best to pick or buy vegetables and fruits in small quantities as you need them.
- Avoid bruised or very ripe fruits and vegetables. Bacteria can pass more easily through their thin skins.

Storing Food Safely

The temperature in your refrigerator should be set no higher than 40°F (4°C). Your freezer should be set no higher than 30°F (-2°C).

- Don't take a chance with eating moldy food. Wrap it up and throw it away.
- If you have a refrigerator, cooler or ice-box, it is safest to keep the temperature just slightly above the freezing point at 35°F to 40°F (2°C to 6°C). Bacteria can grow quickly at temperatures between 40°F and 140°F (4°C and 60°C).
- Don't eat food after the "best before" date.
- Your freezer should be set below 30°F (-2°C).
- Keep raw meats, fish and eggs separate from all other foods and make sure that drippings don't fall onto other foods.
- Leftovers should be stored in clean covered containers in the refrigerator or freezer.
- Do not re-use plastic bags. They may contain food particles that help mold and bacteria to grow.
- Liquid milk should be kept in a refrigerator, cooler or icebox after opening.



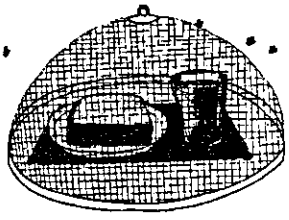
To change °C to °F

$(°C)(1.8) + 32 = °F$

To change °F to °C

$$\frac{°F - 32}{1.8} = °C$$

- Eggs need to be refrigerated in the main part of the fridge, not on the door. If you find a cracked egg, throw it away.
- Fruit and vegetables will keep longer in the refrigerator.
- Poke air holes in plastic bags used to store fruit or vegetable to allow for air circulation.
- Potatoes should not be kept in plastic bags but rather in a cool, dark, well-aired place.



- Throw away potatoes that become soft and shriveled.
- Cut away all green spots or sprouts that develop on potatoes.
- Protect foods from insects, rodents and other animals.

Preparing Food Safely

Wash your hands often

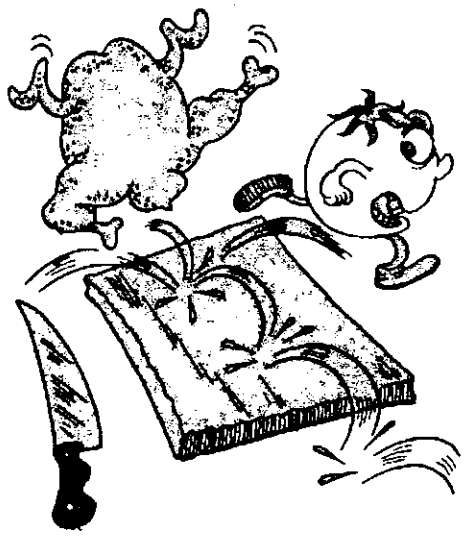
- Wash your hands with soap and water before touching food and after touching raw meat, poultry, seafood, fish or eggs.
- Use paper towels rather than cloth towels for cleaning and wiping your hands. If you use cloth towels, wash them often and thoroughly in hot soapy water. If you use cloth towels in the kitchen, use one for your hands and the other for counter tops.

- It is best to let your clean dishes drip dry rather than wiping them with a cloth towel.
- If you have cuts or sores on your hands, be especially careful to wash your hands well and use rubber gloves when handling food.

- Wash your hands and cooking utensils even more carefully when you are sick with the flu, a cold or diarrhoea.

Keep equipment, utensils and counters very clean

- Wash plates and utensils with hot soapy water and rinse with very hot water. Remember that it is the heat of the water, not the soap, which is important for hygiene. If the water gets too dirty, replace it and continue your washing. Be sure you have enough hot water to rinse your dishes thoroughly.
- Counter tops and cutting boards that have touched raw meat, poultry, seafood, fish or eggs should be washed with hot soapy water, rinsed and disinfected with a bleach solution and then rinsed again with hot water.



- Keep a bleach solution and a pair of rubber gloves within easy reach. Using a bleach solution should become part of your kitchen routine. To make it handy and convenient to use, pre-mix it and keep it in a plastic spray bottle.
- Wash cutting boards after preparing each food item and before you go to the next food. Wipe counter tops often.
- Use a hard plastic, marble or stone cutting board rather than a wooden cutting board. Be sure to clean them carefully.
- Use a cutting board for raw foods. The kitchen sink is not a safe place for this. If possible, use one cutting board for meat, chicken and fish and another one for vegetables and bread.
- If only one cutting board is available, clean it well with soap and hot water after cutting each type of food. Cutting boards made of plastic or marble, and not wood, are the safest for raw meat products. Replace your plastic cutting board when it becomes badly scratched and difficult to clean.

Bleach Solution

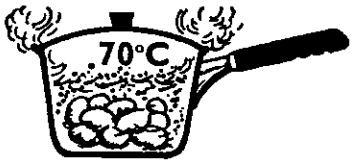
Mix one half teaspoon (2 ml) with 2 cups of water (500 ml). Keep the solution handy for use in your kitchen.

- If you have an oven, microwave or refrigerator, keep them clean.

Thawing meat

- Always thaw frozen meat on a tray in the refrigerator, never at room temperature. Put the tray or platter at the bottom of the fridge to ensure that no drippings touch other food.

Cooking for Safe Eating



Cooking thoroughly kills bacteria in raw foods. Always cook food well and don't taste food before it is fully cooked or completely reheated.

Meat, poultry, seafood and fish

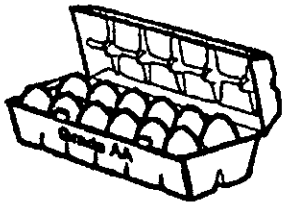
- Meat and poultry should be cooked right through until they are well done. Red meat is done when it is brown or gray inside. The juice from poultry should be clear after sticking. When they are still pink inside, they are not safe for you. When eating in a restaurant or at a friend's house, insist that your meat is well done.
- Fish and other seafoods should be cooked until they are well done and flake easily.
- Do not eat raw meat or uncooked seafood such as clams, oysters, sushi or fish.
- If you buy pre-cooked foods, be sure to reheat them thoroughly until they are hot right through.
- If you cook meat on an open fire or coals, you should pre-cook it before you grill it to make sure it is cooked right through.

- The best way to know if meat is cooked all the way through is to use a meat thermometer. Always insert it into the thickest part of the meat. It should not touch the bone.
- Measure the temperature of meats cooked in the microwave at the end of the standing time.

Safe Temperatures for Cooking

Food	Temperature
Fish	140°F (60°C)
Beef, Lamb, Pork	170°F (75°C)
Veal	180°F (80°C)
Chicken & Turkey	185°F (85°C)

Eggs



- Always cook eggs until both the white and yolk are firm.
- Avoid foods such as salad dressings, sauces, ice cream, eggnog, punches or mayonnaise if they contain raw eggs.
- Hard-cooked eggs can be kept safely in the refrigerator for 7 days.
- When baking, don't taste raw dough or batter if it contains uncooked egg.

Fruits and vegetables

- Wash vegetables and fruits thoroughly under running water or with water that is safe to drink before eating or cooking.
- If it is not possible to wash them properly, peel your fruits and vegetables. A mixture of one teaspoon (5 ml) of bleach added to 4 cups (1 liter) of clean water can be used to wash fruits and vegetables.

Looking After Your Leftovers

Refrigerator temperatures don't kill bacteria; they only slow down the speed at which bacteria grow. If food looks unwholesome or smells unpleasant, throw it away.

- Cover and refrigerate or freeze food you are not going to eat right away.
- Leftovers should not be eaten if they have been in the refrigerator for more than three days.
- If leftovers are to be eaten cold, take them out of the refrigerator just before eating.
- If you want to eat your leftovers warm, reheat them thoroughly. Once the food is hot, keep it hot for 10 minutes.
- If you are reheating soups, stews or sauces, bring them to a boil and let them simmer for 10 minutes.

Freezing

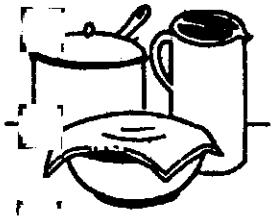
- Label all food with the date, contents and number of servings.
- When using frozen foods, choose the oldest package first.
- You can freeze food in plastic wrap, aluminum foil, and plastic and metal containers. Some glass containers also go in the freezer.
- Some foods don't freeze well. They include cooked eggs, cooked potatoes, most salads and some fresh vegetables, fried foods and sandwiches with mayonnaise.

Foods That Freeze Well

Food	Storage Time (months)
Cooked Fruit (pies, crisps, sauces)	6
Meat, Poultry, Seafood & Fish	
• broiled, roasted frozen without gravy	1
• broiled, roasted frozen with gravy	2–3
• fish with sauce	1–2
• meat loaf (cooked)	1–2
• pasta sauces, stews, casseroles, lasagne	2–3
Soups	4
Vegetables	
• cooked with sauce	1
• cooked, mashed or puréed	1
Grain Products	
• cooked rice	1
• breads	1
• muffins	1

Clean and Safe Water

- Make sure you drink water only from a safe water source. If you use rainwater or use water from a river, well, or spring, drink the water only after boiling it for at least 5 minutes.
- Use the bleach method to make the water safe when it is not possible to boil the water. Add 1 teaspoon (5 ml) or one capful (if the bottle has a screw cap) of bleach to a little more than 26 quarts or 6.5 gallons (25 liters) of water. Mix it well and let it stand for 2 hours (or preferably overnight) before using it.



- Store clean and safe water in a clean container with a lid or covered with a cloth.
- Chilled drinks or ice cubes should be made with water that is clean and safe to drink.

Eating Out and Travelling

Food safety standards are not the same everywhere. When you travel, you come into contact with new germs that your body is not used to. Your immune system is not prepared for this and it can become a problem, even for healthy people. Diarrhoea is a common occurrence. When your immune system is weakened by HIV/AIDS, it is easy to get sick from food and water that does not cause problems in an uninfected person. The following advice is useful:

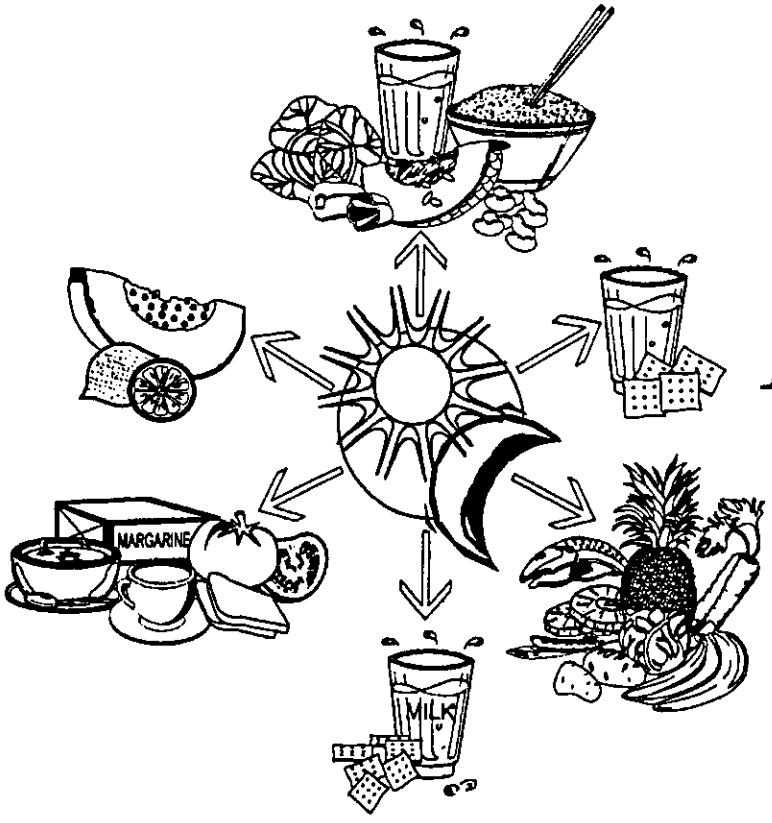
- Eat only food that is properly cooked. Don't be shy about asking that it be done the way you want it.
- Avoid food from salad bars, raw vegetables and fresh fruit with skin.
- Take extra care when travelling or eating out. It is advisable to drink water only after it has been boiled. You can

also have bottled or canned drinks. Do not use ice in drinks as the water used for this could be unsafe.

- Avoid foods sold from the roadside (street foods), especially if they are not properly cooked, stored and heated (as necessary). These can be a source of food poisoning.

7

Coping with Problems Related to HIV/AIDS



7 Coping With Problems Related to HIV / AIDS

It is not always easy to follow a healthy eating plan when you are HIV-positive. When you feel tired, sick, sad or anxious, it is more difficult to pay attention to what you eat. In earlier chapters, we talked about how important it is to keep up your appetite. But sometimes, it may become very difficult.

You may have a hard time chewing or digesting food. You may develop intolerance to milk. Diarrhoea makes it hard for your body to absorb nutrients. Some foods may no longer be appealing and may make you nauseous and lead to vomiting. You may lose your appetite as part of the normal process of infection, as a side effect of the drugs you are taking or because you feel stressed, sad or depressed. Your doctor or caregiver can help. Don't wait.

Coping with problems associated with HIV can be difficult. Do your best. This chapter lists some of the problems you may experience and some of the things you can do to cope with each situation.

Remember

It is important that you get enough nutrients to help your immune system. It's important that you eat enough.

Loss of Appetite?

- Eat small nutritious meals often.
- Eat your favorite, nutritious foods more often.
- Drink after eating, not before or while you are eating.
- Eat foods that are especially rich in nutrients or drink one of the commercial supplements.
- Take advantage of the times when your appetite is better and eat a little more.
- Be flexible with your mealtimes and food choices. It is okay to have cooked food for breakfast if that is what you feel like eating.
- Make each mealtime a pleasant experience. Eat with friends and family. Set an attractive table or have a picnic. Enjoy your favorite music while eating.
- Keep easy-to-prepare or convenience foods handy for quick cooking.
- Keep plenty of nutritious snack food on hand so you will have something handy if you feel like eating.
- Exercise improves appetite. Even light exercise is fine. Try to take a daily walk before a meal.
- Avoid alcohol, diet drinks and low calorie foods. They could dull your appetite and rob your body of important nutrients.

Feeling Tired and Have No Energy?

- Accept offers of help from friends to assist with cooking. Don't hesitate to ask for help.
- Store leftovers (see Chapter 6) safely for later use.
- Cook extras when you feel well. Store them frozen in serving sizes for times when you have less energy. Reheat only enough for one meal or snack.

- Use convenience, easy to prepare foods like canned or already cooked foods which need less effort to prepare.
- Sip high-protein drinks throughout the day.
- Use disposables as much as possible so you will have less dishwashing to do.
- Take your favorite nutritional supplement.
- Remember that tiredness may be the result of anemia. Consult with your health worker.
- Rest as much as you can and be kind to yourself.

Diarrhoea

Prescription drugs, infections, stress and high doses of vitamins and minerals can all cause diarrhoea. Certain foods may also make it worse when your intestines are sensitive or when food is too rich. The biggest immediate problem with diarrhoea is the loss of water This is also called dehydration. If you have diarrhoea:

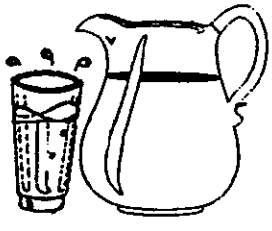
- Drink as much as possible, as often as possible. However do ***not drink prune juice, alcohol, soft drinks, coffee, chocolate or tea.***
- Eat vegetables like pumpkin, carrots, callaloo, tomatoes, and fruits like bananas, paw paw, mango to help replace some of the potassium you lost. ***Be careful not to eat too much to make the diarrhoea worse.*** Monitor your tolerance.

Remember

Diarrhoea is a serious problem. Don't wait. Contact your doctor or health workers. It is important to find out what is causing it as quickly as possible.

- Cut down on your intake of high fat foods if you suspect that fat is a problem. Remember that fat is a good source of energy and you should not cut it out of your diet unless it is absolutely necessary.
- Avoid foods that are high in sugar like soft drinks, jams, jelly, honey and sweetened juices because they may make the diarrhoea worse.
- Reduce your intake of milk and dairy products. Sour or fermented dairy products like yoghurt and buttermilk are often better tolerated.
- Eat starchy foods such as rice, pasta, porridge and breads.
- Eat small meals every few hours rather than three large ones.
- Eat foods warm rather than extremely hot or cold foods but always ensure that all foods are heated thoroughly.
- Consult your dietitian/nutritionist for advice about appropriate foods.

Constipation



- Eat regularly. Try not to skip meals even if you are not feeling well.
- Drink lots of fluid – about 8 glasses daily. It does not have to be water. Any liquid that you usually drink will do just fine.
- Try to be more active. If you stay in bed for a long time, constipation can get worse.
- Eat foods rich in roughage or fibre. Legumes, high fibre cereals, vegetables and fruits are good. Dried fruits, nuts and seeds also provide fibre.
- Speak to your health workers about your constipation.
- Listen to your body and go to the toilet when you feel the urge.

Mouth Pain or Sore Throat

Most of the opportunistic infections that attack the mouth can be treated with medication. Here are some tips that will help you eat better until you get the infection under control:

- Choose foods that are soft and non-irritating like eggs, ground meat, baked fish, pasta dishes, tofu, mashed provision, flavored gelatin, cooked cereals, mashed fruits and cooked vegetables.
- Select moist foods. You can also dip some foods in liquids or soak foods like bread or biscuits in milk to make them less irritating to your mouth.
- Avoid salty, spicy or rough foods like peppers or potato chips.
- Avoid vinegar, other acid tasting foods and drinks or juices made from citrus like orange, grapefruit, lime, lemon. Drink soothing beverages such as apple juice, fruit nectars and milk if you can.

- Do not drink alcohol.
- Avoid foods that stick to the roof of your mouth, for example peanut butter.
- Avoid extremely hot or very cold foods. Cool or room temperature foods are more soothing and may taste better.
- Do not smoke or try to smoke as little as possible.
- Be careful with microwaved foods that may be very hot in the middle but feel okay on the outside or the edges.
- Avoid foods that require a lot of chewing or are tough and fibrous.
- You may find drinking is easier using a straw but be careful not to irritate mouth sores.
- Swallowing may be easier if your tilt your head slightly forward or slightly backward.

- Eat "power-packed" foods to increase nutritional intake. (See pages 42–44.)
- Practice good oral hygiene.

Nausea and Vomiting

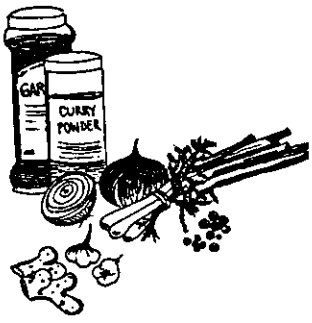
For most people living with HIV, nausea is a temporary condition. Infections and medication can cause nausea. If you have nausea or vomiting:

- Eat dry foods such as toast or biscuits/crackers especially if the feeling comes on before a meal. This may help to calm the stomach especially before breakfast.
- Eat small, frequent meals. Nausea may be worse when the stomach is empty.
- Limit or avoid very sweet foods.
- Avoid hot, spicy, strong smelling and greasy foods.
- Eat soft bland foods that are easy to tolerate.
- Avoid unpleasant odours. Stay away from the kitchen when food is cooking. If you cook for yourself, use foods that don't need to be cooked for a long time. Eat in a well-ventilated area.
- Rest between meals but do not lie down. Try to keep your upper body raised for about two hours after eating.
- Check with your doctor or pharmacist about the timing of your medicine.

Food Has No Taste

Taste changes can be caused by drug side effects, poor nutrition and infections. If your food doesn't taste the way it should, there are some things you can do to make sure you are getting enough nutrients:

- Eat foods with a variety of textures.



- Try eating strong smelling foods.
- Use more herbs and spices on your food. Stronger flavors can be more appealing. Experiment with different seasonings to perk up the taste and smell of food, including vegetables.
- Marinate meats or fish in fruit juice or soy sauce to improve flavour.
- Eat protein foods cold or at room temperature.
- Add fresh or canned fruit to "double-strength" milkshakes or ice cream.

Heartburn and Feeling Bloated

Heartburn or a bloated feeling can affect your appetite. If you experience either condition:

- Eat small meals regularly.
- Avoid gas forming foods such as dried peas and beans, cabbage, cauliflower, corn, breadnut/chataigne, broccoli, cold drinks with gas, and any others that bother you.
- Avoid spicy foods.
- Avoid greasy foods.
- Eat slowly and chew well.

Dry Mouth

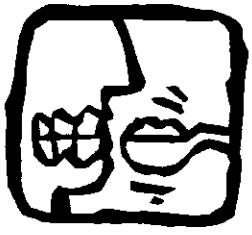
If you experience dryness in your mouth:

- Moisten foods by adding sauce or gravy.
- Reduce or avoid salty foods.
- Drink fluids frequently, including sips of fizzy drinks.
- Moisten lips with petroleum jelly (Vaseline®) or lip balm and maintain good oral hygiene.

Feeling Full Too Quickly

If you feel full too quickly:

- Eat small, frequent meals.
- Choose foods that are rich in nutrients.
- Eat slowly and chew foods.
- Avoid fatty and fried foods. These take longer to digest.
- Avoid filling up with water, coffee, tea or other calorie-free drinks.
- Keep nutritious snack foods handy.



Don't Like Certain Foods

Sometimes you may find that you cannot tolerate certain foods that you are in the habit of eating. If this happens to you:

- Choose other foods that you like from within the food group.
- Ask your diet counsellor to help you with choosing foods from other groups that will give you similar nutrients. This is especially important if you do not like foods from an entire food group.
- Try eating the distasteful foods on the days when you feel well. You may find that you can tolerate them on better days.

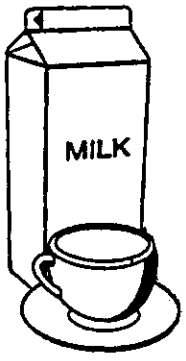
Don't Want to Eat Meat Anymore

Meat is good but you may find that you do not like it anymore. If you feel this way:

- Eat poultry, fish, eggs, milk, cheese, or other dairy products, if it is only red meat that you can no longer tolerate.
- Eat some legumes daily so that you can get some protein.

Don't Like Milk

You may not like milk for a variety of reasons but you may be able to tolerate it otherwise:



- Add a small amount in a hot or cold beverage as a flavoring.
- Use the "double-strength" milk (recipe on page 98).
- Add some milk to a cooked dish like macaroni pie, mashed provision, bread or cake, instead of drinking it .
- Try a by-product such as cheese, ice cream or yoghurt.

Can't Drink Milk Anymore

Some people become lactose intolerant as a result of HIV. You may develop bloating, gas, cramps, burping or diarrhoea after drinking milk. You may not have to stop using milk or milk products completely. You should check with your doctor if you are having problems digesting milk or milk products. If you are lactose intolerant:

- Use either lactose-reduced milk, commercial rice milk or soy milk as an alternative.
- Try drinking milk slowly with a meal.
- Use chocolate or full cream milk.
- Eat small amounts of yoghurt, firm cheeses or drink buttermilk.

Fatty Foods Make You Sick

Although fats are an excellent source of energy, they can be difficult to digest sometimes. If this is your situation:

- Make a special effort to use foods with less fat.
- Use less added fat in cooking so that your food is not greasy.
- Try baking, broiling or barbecuing your meats, poultry and fish.
- Remove the skin from chicken, other fatty poultry, and other meats before cooking.
- Eat any fatty food when it is warm or hot. They are less tolerated when they are cold.

Vegetables Taste Bland

Vegetables are very nutritious but like other foods, taste is important. If you find that you are having problems eating your vegetables because they taste bland, then:

- Season them with fresh or dried herbs or spices that you like. You will be amazed at the change in taste.
- Mix your favourite vegetables with some of the less favourite or even different ones.
- Sprinkle some cheese on top after cooking.
- Add grated, shredded or chopped vegetables to stews, one-pot dishes, gravy, soup or other mixed dishes.
- Try not to overcook certain vegetables. You may find that you will prefer this texture and flavour.
- Increase your serving size from the fruit group because the two groups provide similar nutrients.

Night Sweats and Fever

These situations could mean loss of body fluid and this could be dangerous. You will need to:

- Contact your doctor or health worker.
- Drink at least 8 cups of fluid every day.
- Keep a glass of water at your bedside within easy reach.

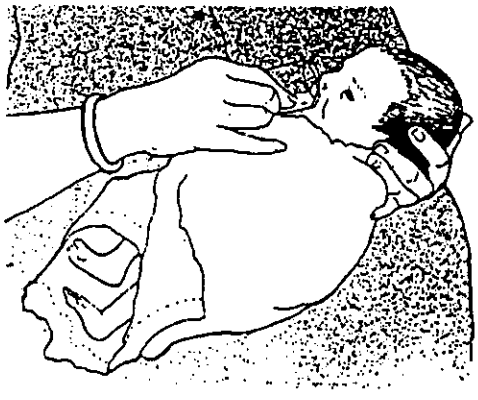
Craving Sweets and Sugary Snacks

It's okay to satisfy your urge occasionally. Remember that your body needs nutrients that are found in sweets. Therefore:

- Be careful not to fill your stomach with less nutritious sweets instead of foods that contain more nutrients.

8

Infants and Children With HIV/AIDS



8 Infants and Children With HIV / AIDS

Caring for Children With Special Needs

Infants and children are very special and delicate. It is critical that they get the best nutrition to help them grow and develop. Good nutrition is also important for them to maintain strength, fight infections and prevent weight loss which is one of the most challenging health issues facing children with HIV/AIDS.

Poor nutrition in children living with HIV/AIDS can be caused by any number of reasons:

- **Medicines** that treat the symptoms of HIV/AIDS can cause nausea or vomiting and, as a result, affect the child's appetite.
- **Thrush** in the mouth can make eating and swallowing difficult.
- **Lack of food**, that is, the child does not receive enough of the right kinds of food. Eating less can result in weight loss or no weight gain.
- **Infections** can affect the child's appetite or can increase the child's need for nutrients, for example, if the child has a fever.
- **Diarrhoea** can result in food not being absorbed properly. Remember that too much sugar, milk sugar (lactose) and fats and oils can worsen diarrhoea.

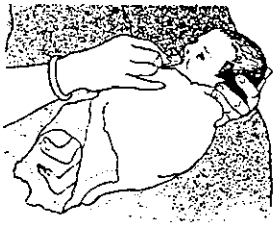
- **Lack of care** – when the caregiver is ill or is having problems living with HIV.

Caring For Infants

For infants who do not have HIV/AIDS, it is well established that breastmilk is the ideal food for them until about six months of age. Fed exclusively, breastmilk promotes optimal growth and development, is convenient, saves money and also benefits the health of the mother. In addition, breastmilk is special because it has substances that prevent the baby from getting sick from diarrhoea, respiratory, ear and other infections.

However, there is evidence that an HIV-positive mother can spread the virus to her baby through breastmilk. As a result, it is necessary for you to get proper counselling. During these sessions, up-to-date information will be shared with you to help you make the best decision for your baby.

Baby can get the virus from breastmilk



Breastfeeding is not recommended if replacement feeding, that is, non-breastmilk feeds, is acceptable, affordable, safe and can be sustained. Replacement feeding is the best recommended option using a commercial infant formula which is mixed according to the manufacturer's instructions.

Diluted regular full-cream milk may also be used (see Appendix VI). The milk must be diluted properly because the amount of protein and some minerals is too high for the infant's immature kidneys. In addition, you will need a prescription for a vitamin-mineral supplement that should be given to your infant. The right mixture is essential to avoid stressing the kidneys or bringing on malnutrition from diluting the milk too much. Skim milk, condensed milk, cereal feeds, juices and teas are not suitable as replacements for breastmilk.

If you must use a regular adult milk, follow the mixing instructions and make it suitable for your baby.

Complementary Feeding

Most infants can begin eating semi-solid foods from about 6 months of age.

Earlier introduction is not recommended.

Complementary feeding for an infant with HIV/AIDS means giving any bought or home-prepared food that is suitable for providing added nutrition to the milk feeds that are being fed to the infant. The term complementary is preferred to weaning because the liquid milk feeds are not to be stopped. The introduction of semi-solid food is not to replace the liquid feeds nor should it be added to the liquid feeds.

Offer a variety of nourishing foods in adequate amounts

The 6–11 month period is an especially vulnerable period. Nutrient needs are high and therefore the meals should be rich in energy and nutrients. Vitamins and minerals can be increased by making sure that you include fruits, dark green leafy and yellow vegetables, animal products and iron fortified foods in the diet. You may also have to give iron supplements. Some food combinations can help with iron absorption. Meat, fish, poultry and/or foods rich in Vitamin C, when eaten with a meal, help the iron from plant foods to be absorbed more readily.

Feed soft foods frequently

Your baby's stomach is small and it can only hold a small amount of food. In addition she/he is just learning to eat. Be patient.

A sample guide for feeding complementary foods is as follows:

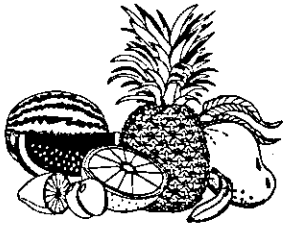
Around 6 months	1–2 times per day
6–12 month old infants	3 times per day
Over 2 years	3 meals and 2 snacks per day

Introduce foods gradually

Give your baby sufficient time to get used to the taste and feel of the new foods. At first, the foods should be mashed or blended to a smooth consistency. By the end of the first year, he/she should be offered foods mashed with a fork or chopped in small pieces.

Offer variety to improve the quality of the diet as well as the micronutrient content

After about 6 months, offer about **4–6 tablespoons strained fruit juice or mashed fruit** daily between meals or with other foods at mealtime.



- You can choose from fruits like ripe banana, pawpaw, mango. Use a spoon to feed the fruit or a cup for the juice. If the juice is not naturally sweet, you can mix it with a little cooled boiled water.

At 6 months:

- ¼ to ½ cup smooth, thick porridge with milk added, once or twice a day. Make porridge from oats, rice, cornmeal or wheat flour. The porridge is best fed from a cup or bowl with a spoon.
- Nutritious "multimixes"

  Start with 4 tablespoons of staple food then add:
  - 2 tablespoons of dried peas or beans (skin removed)
  - 1 tablespoon food from animal
  - 1 tablespoon dark green or yellow vegetable
  - Soften with about 1 teaspoon margarine or gravy.

As far as possible, the foods should be the same as those being used by the rest of the family but without the addition of hot pepper or other strong seasonings. An infant who is 6 months old will not eat as much as an older infant.

HIV / AIDS could affect your baby's appetite

- You will need to be more patient during these times.
- Gently encourage. Do not force, scold or avoid feeding.
- Use favourite foods more often especially until the acute period is over.
- Try different combinations, textures and tastes.
- Feed a little more during the recovery period to make up for any weight loss that might have occurred.
- Keep distractions to a minimum.

Your nutrition counsellor will advise you about how much your baby should be eating for his/her age and condition.

Caring for Older Children

Use the Six Food Groups to plan meals for your child and the family. It is the basis of, and the best guide for variety. If your child is a picky eater, encourage by example. Nagging rarely works. It is normal even for healthy children to refuse certain foods that they would normally eat. Serve new foods more often and mix them with other favourite foods. If your child needs a multivitamin and mineral supplement, it should be prescribed. This should not replace food that has the calories, protein and the other nutrients that are needed for growth and development.

General Feeding Tips for The Child With HIV/AIDS

- Offer small servings more often.
- Increase the energy and protein in the diet.
- Change the texture or consistency of the food especially if the child has thrush.
- Be sure the child has plenty to drink if he has vomiting or diarrhoea so that lost body fluid and minerals are replaced.
- Get guidance from your healthcare provider, dietitian or nutritionist.
- Do not use food as a reward or as a form of punishment.
- Spend some extra time making the food look attractive. Use a variety of colours and shapes as much as possible.
- Encourage your child to help you with shopping and making food choices, preparing meals and setting the table. Make mealtime an enjoyable time.
- Plan picnics and invite other children for meals.
- Keep a watchful eye on what your child eats and make sure the food is safe for eating (See Chapter 6).
- Make life as normal and happy as possible.
- Check the adult section (Chapter 7) for what to do when your child is experiencing eating-related difficulties.

Monitoring Your Child

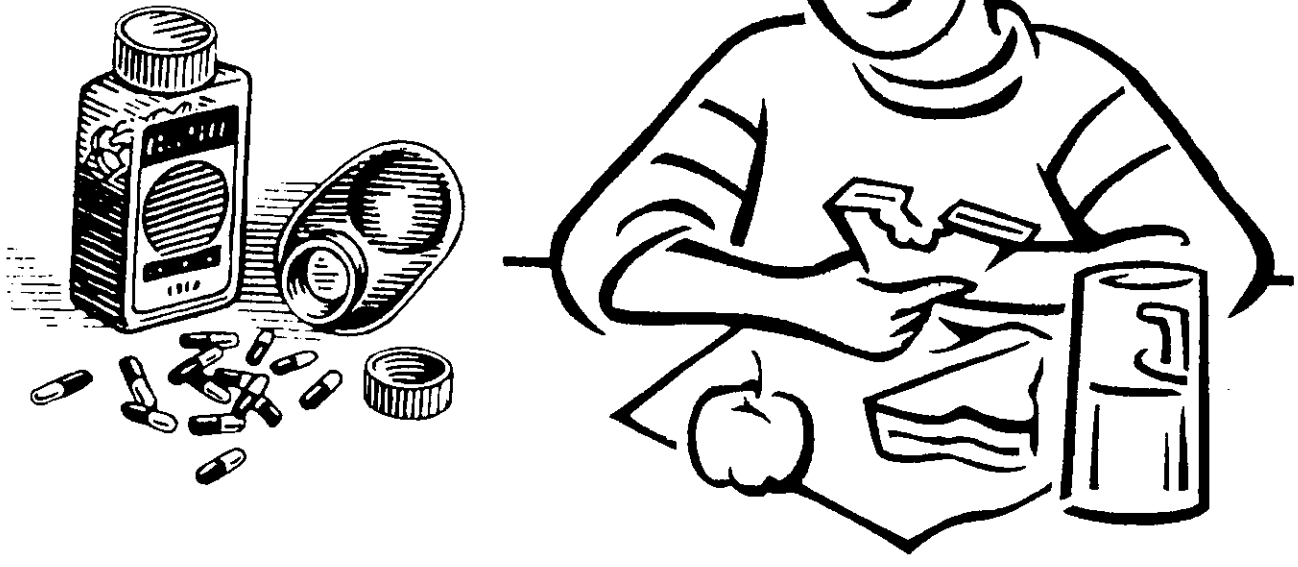
It is important that you keep in contact with your doctor, nurse, dietitian/nutritionist who will help you to monitor how your child is growing. You will need to make more than one visit to keep a check on your child's growth. Almost all children with HIV/AIDS grow at a slower pace than those who are not infected with the virus. It is important that you are active in making sure your child is getting enough nutritious foods. Avoid making your child anxious about growth. Do not weigh him or her too often at home. It will be better to focus on encouraging healthy eating habits rather than on weight gain.

Tips to remember

- Put healthy eating at the top of your list as you care for yourself and your child. Make sure your child has enough of the right kinds of foods.
- Food safety is important to avoid illness.
- Be wary of unproven therapies. Discuss these with your doctor before trying them.
- Keep a diary so that you can talk about your child's health and eating habits when you visit with your healthcare provider.
- Healthy eating can be challenging but you will need to be patient and caring. The best time to begin nutrition therapy is as soon as the HIV has been diagnosed. Healthy food choices can make a difference.
- Keep in touch with your doctor, nutrition counsellor and other members of your healthcare team. You are a partner in your child's care.

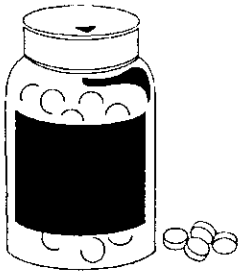
9

Other Key Issues



9 Other Key Issues

Drugs and Nutrition



Medications are usually necessary to treat AIDS and Aids-Related Complex (ARC), but some drugs may cause side effects that can interfere with your ability or desire to eat. It is important that you speak with your doctor or pharmacist to find out about the possible side effects to expect from taking your medication. Your dietitian can also help.

Although each drug behaves differently in your body, you will find that within each group there will be some similarities in side effects. The possible side effects are many but very similar. This does not mean that you will experience all of them.

Table 5 gives you an idea of what you may experience when you take certain types of drugs.

– Remember –

To speak with your healthcare worker especially your doctor or pharmacist to find out about the nutrition-related side effects of the drugs that have been prescribed for you. Either of these persons or a nutrition counsellor can give you some suggestions as to what you can do, should you experience any of these side effects.

TABLE 5: POSSIBLE NUTRITION-RELATED SIDE EFFECTS OF DRUGS BY GROUPING

Drug Grouping	Possible Nutrition-Related Side Effects
Antibacterials (sometimes referred to as antibiotics)	• Dry mouth • Sore mouth • Nausea • Vomiting • Diarrhoea • Constipation • Taste changes • Thrush • Abdominal pain • Loss of appetite • Problems swallowing
Anticancer	• Loss of appetite • Sore mouth and throat • Nausea • Vomiting • Anorexia • Weight loss • Abdominal cramps/pain • Constipation • Swelling of gums • Irritation of the stomach • Altered taste • Difficulty swallowing • Thirst
Antifungal	• Loss of appetite • Nausea • Vomiting • Metallic taste • Weight loss • Diarrhoea

Continues

TABLE 5: POSSIBLE NUTRITION-RELATED SIDE EFFECTS OF DRUGS BY GROUPING (cont'd)

Drug Grouping	Possible Nutrition-Related Side Effects
Antifungal (cont'd)	• Cramping • Stomach pain • Increased thirst • Dry mouth • Taste changes • Cough • Fatigue/tiredness
Anti HIV	• Weight gain • Nausea • Vomiting • Abdominal pain • Diarrhoea (possibly mild) • Taste changes • Increased or decreased appetite • Constipation • Fatigue/tiredness
Anti viral	• Nausea • Vomiting • Metallic taste • Mild diarrhoea

Don't be shy. Get into the habit of talking with your doctor or member of your healthcare team about your health, your habits and how you are feeling. The more you know about what is happening to your body and about what to expect, the more you will be able to cope with symptoms. The more you know,

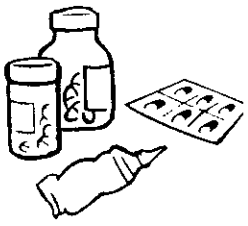
the easier it will be to make informed decisions about your health and care.

Some Questions You Should Ask

- When is the best time to take my medicine?
- Can it affect my appetite?
- Can it affect my sense of taste?
- Will I feel as though I want to vomit?
- Will it make me vomit?
- Will my mouth get sore?
- Will I develop diarrhoea?
- Are there any foods that I should not eat with any of my medicines?
- Is there anything else I need to know about the drugs I am taking?

Appendix V lists some anti-retroviral medications, their side effects and dietary recommendations.

Alternative Therapies and Miracle Cures



There is currently no cure for AIDS. In the search for help though, you may meet people promoting a nutritional or herbal "cure" for AIDS, an "immune-booster" diet, a "special" series of vitamins and minerals for people with HIV/AIDS. They may even get your hopes up about having a cure.

Since there is no cure, people living with HIV have to make choices about how to cope with the disease. It is important to get as much information as possible to help you with making your choices. There are people who only want to make money and will try to get you to buy their "miracle" cures.

It is good for you to keep your hopes up. But beware of people who tell you they have something that no one else has. If it sounds too good to be true, then think again before you act. It may be good to get a second opinion and better still, check with your doctor.

What Should You Ask?

Before you start a particular diet or therapy, it is important to ask yourself a number of questions.

- **Does the diet contain substances in amounts that could be physically harmful?** Taking any one substance, vitamin, mineral or food in excess can be harmful to your body.
- **Does the diet completely replace healthcare that is generally regarded as effective?** There are no secret cures or remedies. To help you make a decision about a new treatment, seek out different opinions from people who have nothing to gain from you.

- **Does the cure or diet promote or emphasize a particular product or nutrient?** Be wary. Good health depends on a balance of many elements including sleep, relaxation, food, regular activity and a positive attitude.
- **Does the diet provide adequate energy and protein along with a variety of other nutrients?** You need to eat a variety of basic foods to get the nutrients you and your immune system require. A diet that recommends that you omit a food group should make you suspicious.
- **Is the product or diet recommended for a number of different conditions?** If general claims are made using words like "detoxify", "revitalize", "energize", "anti-stress", "tonic", or "immune-booster", be suspicious.
- **Do you have to pay a lot of money for the diet or cure?** Be suspicious of people who try to sell you an expensive treatment or "cure" for HIV/AIDS. Be especially cautious if you have to pay cash for expensive travel arrangements or treatment ahead of time.

■ *Take Care of Yourself*

For people living with HIV/AIDS, nutrition is an important part of treatment. Healthy ways of eating were discussed earlier in the handbook, but people need more than food. Food nourishes the body. The mind must also be healthy. Being overly worried and under stress can weaken your immune system. Take care of yourself.

☞ Be kind to yourself.

- Try to keep a positive attitude. We know that feeling good is part of being healthy.

☞ Get regular exercise.

- Exercise helps to build muscle. This is important to prevent weight loss.
- Do not put too much stress on your body when you are not feeling well. Slow down when you have diarrhoea, a cough or fever.
- Exercise will help you to feel better about yourself.

☞ Try not to smoke.

- Smoke from cigarettes harms the lungs. Smoking causes lung infections which can be very serious with HIV/AIDS.
- If you really cannot stop, try to cut down.

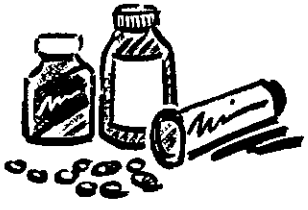
☞ Get lots of rest and sleep.

☞ Try not to worry too much. Stress can harm your immune system.

☞ Get good advice.

- If you have any medical problems or difficulties, get advice from a health professional. Many problems can be treated.
- The sooner you seek help, the easier treatment can be.

☞ Avoid unnecessary medicines.



- Medicines often have unwanted side effects.
- Medicines can interfere with food and nutrition.
- Only take medicines as prescribed.

☞ Avoid alcohol.

- Alcohol harms the liver and can be especially harmful if combined with some medicines.
- Alcohol can cause you to be more at risk of getting infections.
- Alcohol destroys vitamins in the body.
- Alcohol can blur your judgment and eyesight and can lead to accidents, exposure to health risks, unsafe sex, and so on.

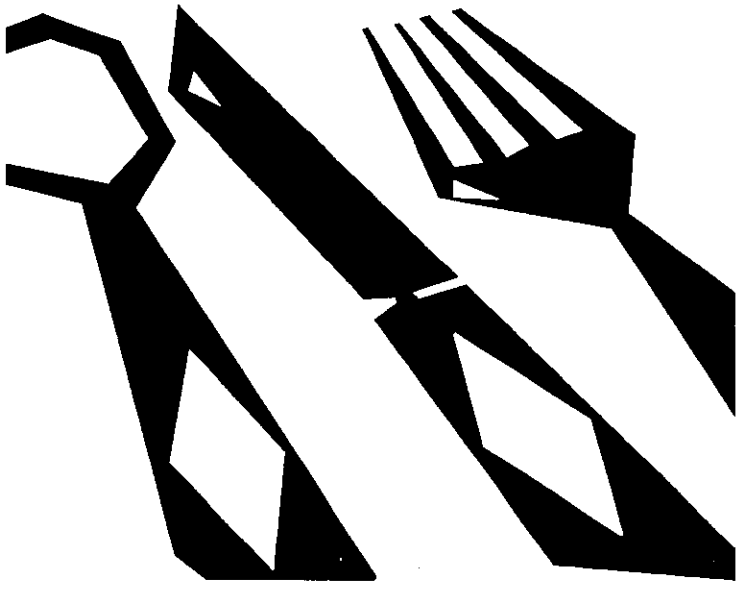
☞ Find support.

- You need medical help and support but you also need the support of family, friends and people who can help out when needed. Don't be afraid to ask for it and to make sure that you have people on whom you can call when you need help.

10

Recipes

Specially designed for persons living with HIV/AIDS



10 Recipes

Specially designed for persons living with HIV/AIDS

Menu

These sample recipes are very nutritious, simple, easy to prepare, low-cost, and of course, delicious. Also, especially to meet the needs of PLWHAs, they contain little or no lactose. Additionally, all of them are high in energy. Don't be afraid to experiment on your own; substitute (or add to) some of the ingredients used in these recipes with other similar foods to add flair and top up the dishes. However keep in mind your limits in terms of what you can tolerate.

Beverages

Ideally, the beverages are to be used as meal supplements. They may be had while you're on the go, if made beforehand, or as a quick snack at home. It is not recommended that they be drunk with meals since they tend to be quite thick. However, in the end it's all your choice!

- *Single strength soya milk;*
- *Coco Bana;*
- *Peanut Shake;*
- *Double strength soya milk*
- *Punch de Carrot*
- *Caribbean Delight*

You will notice that soya milk was used with all these drinks because persons with HIV/AIDS are very likely to become lactose-intolerant. Should you choose to use cow's milk, the nutrient content will be different.

You are advised not to add ice to the drinks if you do not know that clean, boiled water was used to make the ice. Otherwise, if you need to add ice, measure your serving size first, and then add a few cubes to chill the drink. Be sure to drink all of it.

Meat Dishes

These meat dishes were made with everyone in mind. Whether your taste is sweet, spicy, or mellow, there is a dish here for everyone!

Sweet & Sour Chicken

Fried Chicken

Vegetable Beef Stew

Delicate Tuna Florentine

Other Dishes

To add interest to your plate, jazz up your palates with these easy and quick side dishes.

Corn Bread

Garden Salad Exotica

Breadfruit Vegetable au Gratin

Helpful Cooking Terms

Blend: Thoroughly mix two or more ingredients

Broil: Cook by direct heat either under or over a flame

How to follow the Recipes

The recipes have been designed to offer weights and measures in metric, imperial and household measures. Choose whichever measure you feel most comfortable with.

Marinate:	Place food into a marinade (usually an oil-acid mixture)
Sauté:	Cook in a small amount of fat
Sear:	Brown the surface of meat by applying intense heat for a short time
Simmer:	Cook in a liquid in which bubbles form slowly and break just below the surface, that is just below boiling point.

Single strength soya milk

Makes 4 cups (1 Litre)
4 servings

	Metric	Imperial	Household	Metric
Ingredients	**g**	**oz**	**cup**	**mL**
Water	–	31¼	3½	875
Soya milk powder	120	4	1¼	–

Method:

Blend all ingredients together until thoroughly mixed. Place in a clean, covered container and refrigerate. Serve cold or as a hot beverage. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	150
Protein:	8 g
Total fat:	8 g
Saturated fat:	4 g
Cholesterol:	0 mg
Total carbohydrate:	11 g
Dietary fibre:	0 g
Iron:	0.5 mg

Double-strength soya milk

To get some extra calories, add more soya milk powder to your single-strength soya milk to get this creamy, luscious drink. This beverage is a major ingredient in the dishes found in this book. You may also use this as a substitute in any of your own home-cooked meals where cow's milk is used.

Makes 4 cups (1 L)
4 servings

	Metric	Imperial	Household	Household	Metric
Ingredients	**g**	**oz**	**cup**	**tbsp**	**mL**
Water	–	30	3 1/3	–	833
Soya milk powder	190	7	2	–	–
Granulated sugar	45	1½	–	3	–
Oil	–	1	–	2	30

Method:
Blend all ingredients together until thoroughly mixed. Put in a clean, covered container and refrigerate. Serve cold or as a hot beverage. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	345
Protein:	13 g
Total fat:	20 g
Saturated fat:	7 g
Cholesterol:	0 mg
Total carbohydrate:	29 g
Dietary fibre:	0 g
Iron:	0.9 mg

■ *Coco Bana*

Coco Bana is a smooth blend of ripe banana/fig and coconut cream powder to give a delicious drink. It will be a favorite for the kids too!

Makes 4 cups (1 L)
4 servings

	Metric	Imperial	Household	Household	Household	Metric	Household
Ingredients	**g**	**oz**	**cup**	**tsp**	**tbsp**	**mL**	**Actual size**
Very ripe bananas/figs, peeled	300	11	–	–	–	–	3
Double-strength soya milk	750	27	3	–	–	750	–
Granulated sugar	40	1½	–	–	2 ½	–	–
Vanilla essence	5	0.2	–	1	–	5	–
Grated nutmeg	–	–	–	1/8	–	–	–
Cinnamon powder	–	–	–	1/8	–	–	–
Coconut cream powder	23	0.8	–	4 ½	1 ½	–	–
Salt	–	–	–	1/8	–	–	–

Method:

Blend all ingredients together until thoroughly mixed. Strain, put in a clean, covered container and refrigerate. Serve cold. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	369
Protein:	10 g
Total fat:	17 g
Saturated fat:	8 g
Cholesterol:	0 mg
Total carbohydrate:	46 g
Dietary fibre:	1 g
Iron:	0.9 mg

Note:

You may notice a thin black layer at the top of the beverage upon settling. This is due to the natural reaction of the ingredients, so don't be alarmed.

Punch de Carrot

Do you have left over carrots and are not sure what to do with them? Well worry no more! Use them to make this splendid carrot punch, a treat the whole family will enjoy.

Makes 4 cups (1 L)
4 servings

	Metric	Imperial	Household	Household	Household	Metric	Household
Ingredients	**g**	**oz**	**cup**	**tsp**	**tbsp**	**mL**	**Actual size**
Local carrot, peeled and chopped	448	15	4	–	–	–	–
Double-strength soya milk	875	31¼	3½	–	–	875	–
Grated nutmeg	–	–	–	1/8	–	–	–
Vanilla essence	–	–	–	1	–	5	–
Granulated sugar	112	4	1/2	–	8	–	–
Salt	–	–	–	1/8	–	–	–
Oil	30	1	–	–	2	30	–

Method:

Blend all ingredients together in a blender at high speed until thoroughly mixed. Strain (twice if necessary), squeezing juice from carrots well. Put in a clean, covered container and refrigerate. Serve cold. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	396 g
Protein:	11 g
Total fat:	24 g
Saturated fat:	6 g
Cholesterol:	0 mg
Total carbohydrate:	62 g
Dietary fibre:	2 g
Iron:	1.2 mg

Tip:

Try substituting carrot with another starchy vegetable, fruit, root, or tuber, for example, pumpkin, yam, plantain, etc. You may need to alter the sugar content or add more spices and flavourings.

■ *Peanut Shake*

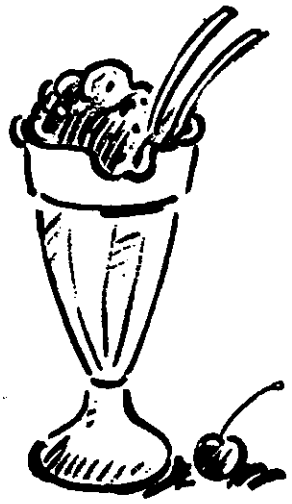
Makes 4 cups (1 L)
4 servings

	Metric	Imperial	Household	Household	Imperial
Ingredient	**g**	**oz**	**cup**	**tbsp**	**mL**
Peanut butter	112	4	1/2	8	–
Double-strength soya milk	917	32	3 2/3	–	917
Granulated sugar	100	3½	1/2	8	–

Method:

Blend all ingredients at medium-high speed until thoroughly mixed. Strain, place in a clean, covered container and refrigerate. Serve cold. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	551
Protein:	18 g
Total fat:	31 g
Saturated fat:	8 g
Cholesterol:	0 mg
Total carbohydrate:	55 g
Dietary fibre:	2 g
Iron:	0.8 mg



Caribbean Delight

Be enveloped by this tropical enchantment. Soothe your soul with flavours from the Caribbean in this spectacular combination of local fruits and vegetables . . . almost too much for one glass to handle.

Makes 4 cups (1 L)
4 servings

	Metric	Imperial	Household	Household	Metric	Household
Ingredients	**g**	**oz**	**cup**	**tbsp**	**mL**	**Actual size**
Local carrot, peeled and chopped	112	4	1	–	–	–
Ripe tomato	168	6	1	–	–	–
Very ripe banana/fig, peeled	100	3½	–	–	–	1
Pineapple juice	625	22	2½	–	625	–
Orange juice	125	4	½	–	125	–
Ripe mango, peeled	112	4	½	–	–	–
Granulated sugar	120	4½	½	–	–	–
Lime juice	15	½	–	1	15	3
Oil	30	1	–	2	30	–

Method:
Blend all ingredients at high speed until thoroughly blended. Strain (twice if necessary), squeezing juice from ingredients well. Place in a clean, covered container and refrigerate. Serve cold. Shake or stir well before serving.

Serving size: 1 cup (250 mL)	
Amount per serving	
Calories:	326
Protein:	1 g
Total fat:	8 g
Saturated fat:	1 g
Cholesterol:	0 mg
Total carbohydrate:	70 g
Dietary fibre:	1 g
Iron:	1.1 mg

■ *Fried Chicken*

4 servings

	Metric	Imperial	Household	Household	Household	Metric	Household
Ingredients	**g**	**oz**	**cup**	**tsp**	**tbsp**	**mL**	**Actual size**
Chicken parts	812	29	–	–	–	–	–
Seasoning							
Garlic cloves, chopped	28	1	–	–	–	–	8
Onion, chopped	168	6	1	–	–	–	3 small
Chive/Escallion, chopped	28	1	2/3	–	–	–	16 stalks
Thyme	–	–	–	–	1	–	2 sprigs
Hot pepper, chopped (optional)	–	–	–	1/2	–	–	–
Soya sauce	60	2	1/4	–	4	6	–
All-purpose meat seasoning	–	–	–	4	–	–	–
Black pepper (optional)	–	–	–	1/2	–	–	–
Salt	–	–	–	1	–	–	–
Coating						–	–
All-purpose flour	240	8 1/2	2	–	–	–	–
Breadcrumbs	55	2	1/2	–	–	–	–
All-purpose meat seasoning	–	–	–	2	–	–	–
Black pepper (optional)	–	–	–	1/4	–	–	–
Salt	–	–	–	1	–	–	–
Eggs	150	5 1/2	–	–	–	–	3
Double-strength soya milk	60	2	1/4	–	4	60	–
Oil (for deep frying)							

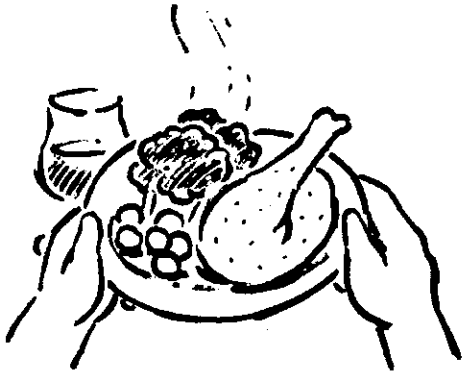
Continues on next page

Method:

1. Season chicken and leave to marinate for at least 1 hour in the refrigerator.
2. Mix together dry ingredients for coating; beat eggs and milk together in a bowl.
3. Set up breading station: put about ½ of the flour coating mixture in a plate; place bowl with egg mixture beside flour mixture; put the remainder of the flour mixture in a plate beside the egg mixture.
4. Scrape seasoning off chicken; coat in the order of the breading station: flour, then egg, then flour again, making sure that each individual chicken part is well coated.
5. Fry coated chicken in hot oil over high heat for about 2 minutes, so that chicken is crispy, then reduce heat and fry for 10 minutes more or until done and golden brown.

Remember that if the oil does not cover the chicken it might become soggy!

Amount per serving	
Calories:	783
Protein:	50 g
Total fat:	37 g
Saturated fat:	10 g
Cholesterol:	388 mg
Total carbohydrate:	58 g
Dietary fibre:	2 g
Iron:	6.7 mg



■ *Sweet and Sour Chicken*

4 servings

Ingredient	Metric g	Imperial oz	Household cup	Household tsp	Household tbsp	Metric mL
Chicken, cut in small pieces and fried	812	29	–	–	–	–
Sauce					–	–
Pineapple juice	1000	36	4	–	–	1000
Ketchup	112	4	1/2	–	–	125
Vinegar	56	2	1/4	–	6	60
Granulated sugar	112	4	1/2	–	–	–
Pineapple chunks	224	8	1	–	–	–
Sweet pepper	168	6	1	–	–	–
Corn flour	54	2	–	–	6	–
Egg powder (optional)	–	–	–	1/2	–	–

Method:

1. In a pot, bring pineapple juice to a boil.
2. Add ketchup, vinegar, and sugar. Stir until all ingredients are completely dissolved. (If used, add egg powder at this stage. Egg powder is used to enhance the colour to give a brighter yellow/orange).
3. Add pineapple chunks, and sweet pepper. Allow to simmer for 1 minute.
4. Dissolve cornstarch in about ½ cup sauce. Add to pot gradually, stirring constantly until sauce thickens.
5. Add chicken, and toss until each piece is coated. Serve.

Aount per serving	
Calories:	821
Protein:	56 g
Total fat:	28 g
Saturated fat:	8 g
Cholesterol:	183 mg
Total carbohydrate:	85 g
Dietary fibre:	2 g
Iron:	4.4 mg

Delicate Tuna Florentine

Persons with difficulty chewing or swallowing will find this dish somewhat of a relief. Delicate Tuna Florentine may be used by persons on a soft diet, or those who simply desire something light to eat.

4 servings

	Metric	Imperial	Household	Household	Household	Metric	Household
Ingredient	**g**	**oz**	**cup**	**tsp**	**tbsp**	**mL**	**Actual size**
Tuna, canned in oil	336	12	1 1/3	–	–	–	–
Lime juice	5	0.2	–	1	–	5	1
Callaloo*	224	8	3	–	–	–	–
Onion, chopped	56	2	1/2	–	5	–	1 small
Margarine	60	2	1/4	–	4	–	–
Black pepper (optional)	–	–	–	1/2	–	–	–
Sauce							–
Margarine	30	1	–	–	2	–	–
All-purpose flour	36	1	1/4	–	4	–	–
Onion, finely diced	28	1	1/4	–	2 ½	–	1/2 small
Garlic clove, finely diced	–	–	–	–	–	–	1
Double-strength soya milk	250	62 ½	1	–	–	250	–
Stock cube	4	0.1	–	1	–	–	2/3
Warm water	125	4 ½	1/2	–	–	125	–
Black pepper (optional)	–	–	–	1/4	–	–	–
Salt	–	–	–	1/8	–	–	–
Bread crumbs	60	2	1/4	–	4	–	–

*Can be substituted with either spinach, bhagi or dasheen bush.

Method:

1. Drain tuna and flake slightly. Drizzle with lime juice and mix well.
2. Cook callaloo: melt margarine, and sauté onion; add callaloo and black pepper and stir; allow to cook until callaloo is just tender.

3. Dissolve stock cube in water. Make sauce: melt margarine and sauté onion and garlic with salt and black pepper; add flour and mix well; remove pot from heat and gradually add milk, stirring until all the flour is mixed out; return pot to heat; add stock and stir until sauce becomes thick.
4. Mix about 1/3 of the sauce with the callaloo and place in an ovenproof serving container.
5. Sprinkle tuna on top of callaloo. Spoon on the remainder of the sauce over the tuna. Sprinkle breadcrumbs over sauce.
6. Put in a 350°F preheated oven for about 5 minutes. Serve from dish.

Amount per serving	
Calories:	524
Protein:	32 g
Total fat:	31 g
Saturated fat:	12 g
Cholesterol:	15 mg
Total carbohydrate:	28 g
Dietary fibre:	1 g
Iron:	5.9 mg

Tip:

If you don't feel like having tuna, you can try using other types of fish and shellfish or even poultry. Here are some suggestions: fish filleted or cut in steak rounds, pickled codfish (saltfish), lobster, shrimp, crab, chicken, duck, etc. Of course, you'd have to cook these before, using as little liquid as possible, then put them in the recipe as desired.

■ *Vegetable Beef Stew*

4 servings

Ingredient	Metric g	Imperial oz	Household cup	Household tsp	Household tbsp	Metric mL	Household Actual size
Boneless stewing beef, cut in strips or chunks	336	12	–	–	–	–	–
Seasoning							
Onion, chopped	168	6	1 1/2	–	–	–	2-3 small
Garlic cloves, chopped	28	1	–	–	–	–	8
Chive/Escallion, chopped	28	1	2/3	–	–	–	16 stalks
Soya sauce	120	4	1/2	–	–	125	–
Thyme	–	–	–		1	–	2 sprigs
All-purpose meat seasoning	–	–	–	4	–	–	–
Black pepper (optional)	–	–	–	1/2	–	–	–
Salt	–	–	–	1/2	–	–	–
Hot pepper, chopped (optional)	–	–	–	1/2	–	–	–
Oil	60	2	1/4	–	4	60	–
Water	750	27	3	–	–	750	–
Granulated sugar	15	1/2	–	–	1	–	–
Sweet pepper, cut in strips	224	8	–	–	–	–	–
Local carrot, peeled and cut in circles	224	8	–	–	–	–	
Irish potato, peeled and cut in ½" cubes	224	8	–	–	–	–	–
Ketchup	56	2	1/4	–	–	–	–

Continues on next page

Method:

1. Season beef and let marinate for at least 1 hour in the refrigerator.
2. Scrape seasoning off beef and sear in hot oil over medium flame for about 10 minutes.
3. Add seasoning and water and simmer over low heat for 1–2 hours or until beef is tender.
4. Add sugar, carrot, potato and ketchup. Continue to simmer for about 5–10 minutes more or until potatoes and carrots are just tender. Add sweet pepper about 2 minutes before the carrots are finished (just enough time for them to cook without getting too soft).

Amount per serving	
Calories:	425
Protein:	25 g
Total fat:	25 g
Saturated fat:	6 g
Cholesterol:	53 mg
Total carbohydrate:	31 g
Dietary fibre:	1 g
Iron:	4.6 mg

■ *Corn Bread*

For this recipe you don't even need a cake mixer. Just whip up all the ingredients together, and voilà!! A scrumptious corn bread that may be eaten alone, or with other foods. Power-pack this dish by adding some grated cheddar cheese to the mixture.

5 ½ servings

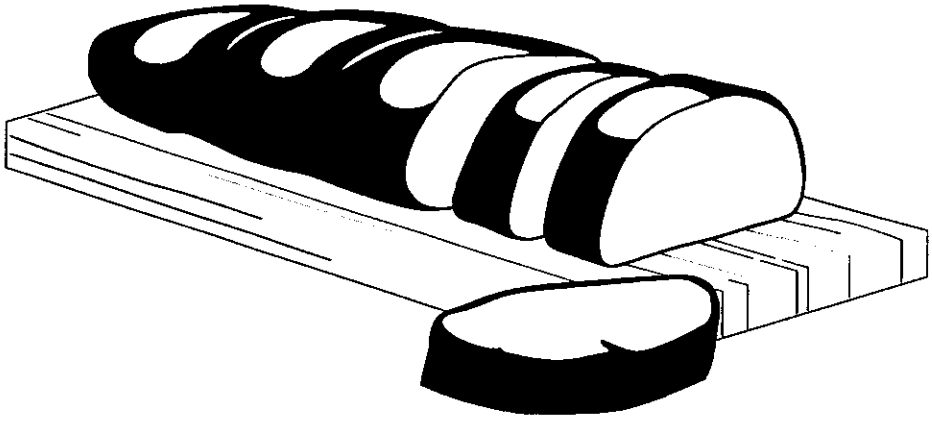
	Metric	Imperial	Household	Household	Household	Metric	Household
Ingredient	**g**	**oz**	**cup**	**tsp**	**tbsp**	**mL**	**Actual size**
Margarine	112	4	1/2	–	7½	–	–
Double-strength soya milk	280	10	1¼	–	–	310	–
Refined yellow cornmeal	140	5	1 1/3	–	–	–	–
Granulated sugar	224	8	1	–	–	–	–
Egg, beaten	112	4	–	–	–		2
All-purpose flour	140	5	1 1/3	–	–	–	–
Baking powder	17	0.6	–	5	–	–	–
Salt	3	0.1	–	1/2	–	–	–
Sweet whole kernel corn	140	5	1	–	–	–	–
Vanilla	–	–	–	1	–	5	–

Method:

1. Melt margarine. Add milk, stir, and then add cornmeal and sugar. Cook, stirring constantly, for about 1 minute until mixture thickens slightly.
2. Sift together flour, baking powder, and salt. Add corn and mix well, making sure that all ingredients are evenly combined.
3. Add egg to cornmeal mixture and stir.
4. Add cornmeal-egg mixture to flour mixture with vanilla, and mix just until all the dry ingredients are moistened. The mixture will look lumpy. DO NOT OVERMIX.

5. Pour batter in a well greased and floured 9" x 5 ½" bread pan, or 8" cake tin. Bake for 50 minutes at 325°F.
6. Allow to cool for 5 minutes, then remove from pan.

Serving size: 1–1 ½ " slice	
Amount per serving	
Calories:	608
Protein:	10 g
Total fat:	23 g
Saturated fat:	10 g
Cholesterol: 1	11 mg
Total carbohydrate:	89 g
Dietary fibre:	3 g
Iron:	3.0 mg



■ *Garden Salad Exotica*

4 servings

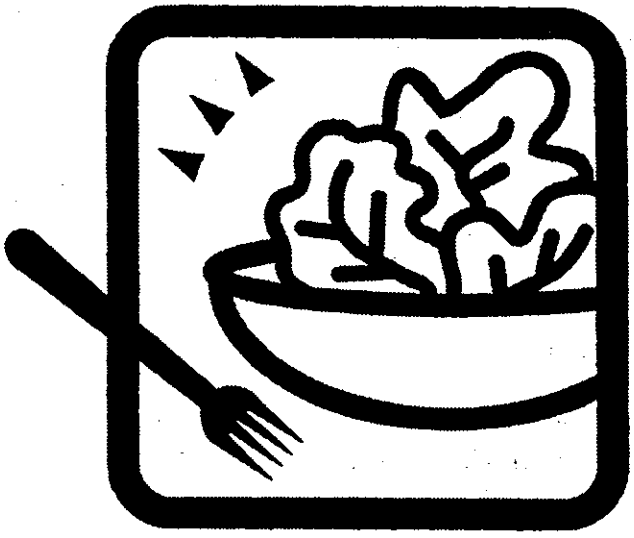
	Metric	Imperial	Household	Household	Household	Household
Ingredient	**g**	**oz**	**cup**	**tsp**	**tbsp**	**Actual size**
Cold fried chicken, without bones, cut in strips or cubes	336	12	–	–	–	–
Just ripened plantain, peeled, cut in ½" cubes, fried, and cooled	336	12	–	–	–	–
Just ripened pawpaw, peeled and cut in ½" cubes	336	12	–	–	–	–
Tomato, chopped	224	8	–	–	–	2–4
Lettuce leaves	60	2	–	–	–	12
Peanuts, unsalted, crushed	56	2	1/4	–	4	–
Raisins	56	2	1/4	–	4	–
Dressing						
Mayonnaise	112	4	1/2	–	8	–
Onion, finely chopped	56	2	1/2	–	5	–
Cucumber, finely chopped	56	2	1/2	–	5	–
Black pepper	–	–	–	1/4	–	–

Method:

1. All ingredients should be cold.
2. Tear lettuce and line bottom of serving container. Toss together plantain, pawpaw, tomato, peanuts, and raisins, reserving enough peanuts and raisins to sprinkle on top of salad. Put tossed ingredients on top of bed of lettuce. Sprinkle on remaining peanut and raisin. Refrigerate until ready to serve.

3. Mix together all the ingredients for the dressing. Keep refrigerated until ready to serve.
4. Spoon dressing on salad before serving.

Amount per serving	
Calories:	693
Protein:	30 g
Total fat:	42 g
Saturated fat:	7 g
Cholesterol:	86 mg
Total carbohydrate:	53 g
Dietary fibre:	4 g
Iron:	2.7mg



■ *Breadfruit Vegetable au Gratin*

4 servings

Ingredient	Metric g	Imperial oz	Household cup	Household tsp	Household tbsp	Household Actual size
Breadfruit, roasted or boiled, cut in ½" cubes	112	4	–	–	–	–
String beans	56	2	–	–	–	–
Local carrot, peeled, cut in thin strips	56	2	–	–	–	–
Margarine	30	1	–	–	2	–
Onion, finely diced or grated	28	1	1/4	–	2 1/2	–
Garlic, finely diced or grated	–	–	–	–	–	2 cloves
Black pepper (optional)	–	–	–	1/8	–	–
Single-strength soya milk	125	4	1/2	–	–	–
Stock cube, dissolved in milk	4	0.1	–	1/2	–	–
All-purpose flour	18	0.6	–	–	2	–
Bread crumbs	12.5	0.5	–	–	2 1/2	–
Cheddar cheese, thinly sliced or grated	112	4	1/2	–	–	–

Method:

1. Melt margarine; sauté onion and garlic with black pepper.
2. Add breadfruit, string beans, and carrots. Sauté at low to medium heat for about 5–10 minutes until string beans and carrots are tender but still crisp.
3. Dissolve stock cube in milk. Add flour and 1 tbsp bread crumbs and mix thoroughly, then add ¾ of the cheese, and the milk with stock cube dissolved in it.

4. Stir until all the liquid has thickened, and the cheese has begun to melt.
5. Place mixture in an ovenproof serving container. Cover top with remaining slices of cheese, then sprinkle with remaining bread crumbs.
6. Put to broil in an oven preheated at 350°F for about 15 minutes or until topping begins to brown.

Amount per serving	
Calories:	257
Protein:	10 g
Total fat:	17 g
Saturated fat:	9 g
Cholesterol:	29 mg
Total carbohydrate:	8 g
Dietary fibre:	1 g
Iron:	1.0 mg

Tip:

Don't limit yourself to only the ingredients used in the recipes. Experiment with different foods and come up with your own creations. In the case of this dish, other foods like potato, yam, green banana/fig, plantain, cassava, or dasheen/eddo/taro may be used to replace breadfruit. Other vegetables such as broccoli, cauliflower, kernel corn, baby corn, pakchoi, or sweet pepper, and cheeses such as parmesan, mozzarella, or swiss cheese can be used too. You may also try adding any type of meat, fish, or poultry.

"Dance like nobody's watching, love like you'll never get hurt, sing like there's nobody listening, and live like there's heaven on earth!"

Appendices, Glossary & References

– *Appendix I* –

UNRAVELLING THE NUTRIENTS: What they do and where they are found

Nutrients	Purpose	Main Food Groups	Key Food Sources (Examples)
Carbohydrates	Supply energy. Spare the body from using protein for energy. Help the body to use fat better.	Staples Legumes Fruits Vegetables	Cereals, rice, flour and flour products Lentils, black eye peas, gungo/ pigeon peas, peanuts, etc. Citrus fruits, mangoes, pineapple, papaw, green figs, bananas, plantain Pumpkin, bodi, string beans, bora, carrots, peas, potatoes, yams
Proteins	Build and maintain body tissue and muscles. Form an important part of enzymes, hormones and body fluids. Provide energy.	Food from animals Legumes Milk products	Fish and seafood, salt fish, poultry, red meats, pork, lamb Red beans, split peas, white beans, etc. Egg, cheese, milk, yoghurt
Fats	Supply twice as much energy as carbohydrates. Help the body to use other nutrients such as Vitamins A, D, E, K. Supply some of the essential fatty acids. Add flavour to food and slow the onset of hunger.	Fat and substitutes	Vegetable oils, margarine, butter, cream cheese, streaky bacon, shortening Avocado Salad dressings

Appendix I (cont'd)

UNRAVELLING THE NUTRIENTS: What they do and where they are found

Nutrients	Purpose	Main Food Groups	Key Food Sources (Examples)
Vitamins	Essential in the process in which the carbohydrates, proteins and fats are digested, absorbed and used by the body to make new tissues. *Each vitamin has specific functions.*	Fruits Vegetables	Carambola/five finger, sapodilla/naseberry, pommerac/otaheite apple, plums, cherries, guava Pakchoi, pumpkin, lettuce, cabbage, spinach, callaloo, dasheen bush *Foods tend to have more of one vitamin than others*
Minerals	Help in various body functions. Speed up reactions (enzymes) and work as chemical messengers (hormones). Help in breaking down carbohydrates, protein and fats to give the body energy. Provide structure for bones and teeth. *NB: Each mineral has specific functions*	All the food groups	*Some foods have more of one mineral than another*
Water	Carries nutrients to and from body cells. Helps digestion and absorption of food. Helps to regulate body temperature.	All the food groups	All foods, but is more present in liquids, ice, milk, soups, beverages, ice lollies, ice cream, flavoured gelatin

– *Appendix II* –

WHERE CAN I FIND THE NUTRIENTS I NEED FOR MY IMMUNE SYSTEM?

You have already read in Chapter 3 how important it is to eat nutritious foods every day. You also need a balanced diet. Some foods are rich in nutrients that are important to your immune system. Here are some examples of nutrients and which foods contain them. A complete list of foods identified with asterisks (*, **, or ***) can be found at the end of this table.

PROTEIN

- Meat
- Chicken, turkey
- Fish, seafood
- Eggs
- Legumes*, tofu
- Nuts, peanut butter
- Milk, cheese, yoghurt

IRON

- Liver (beef, pork, chicken, calf)
- Kidneys
- Beef, pork, lamb, goat
- Trout, mackerel, clams, sardines, shrimp
- Legumes*, tofu
- Egg yolks
- Turkey (dark meat)

Note: Green bananas/figs, eddoes and other provisions are not recommended as sources of iron.
Note: (1) Iron is absorbed better if eaten with the following foods and those which contain Vitamin C: whole grains **, cream of wheat cereal, iron-enriched breakfast cereals, iron-enriched pasta, iron-enriched baby cereals, leafy green vegetables***, broccoli, green peas, potatoes and sweet potatoes (with skin), canned tomatoes, tomato juice, prunes, raisins, nuts and seeds.
(2) Iron absorption is hindered in the presence of tea, coffee, soy protein, chocolate and spinach

COPPER

- Liver, kidneys
- Shellfish
- Legumes*
- Nuts
- Whole grains**
- Mushrooms

MAGNESIUM

- Seafood
- Legumes*, tofu
- Milk
- Whole grains**, wheat germ, bran cereals
- Leafy green vegetables***, avocado, broccoli
- Green peas
- Baked potatoes (with the skin)
- Bananas, raisins
- Nuts, seeds

ZINC

- Liver
- Beef, pork, lamb
- Seafood, sardines, herring
- Leafy green vegetables***
- Legumes*
- Peanuts, seeds

ZINC *(cont'd)*

- Whole grains**, wheat germ
- Eggs
- Milk, cheese, yoghurt

VITAMIN A

- Liver
- Milk
- Eggs
- Mango, papaya/paw paw, cantaloupe
- Green vegetables, carrots, yellow sweet potatoes, pumpkin, squash

VITAMIN B_6

- Liver, meat
- Chicken
- Fish
- Whole grains**
- Legumes*
- Bananas
- Baked potatoes (with the skin)
- Spinach, calallo/dasheen bush
- Avocados, green peas

VITAMIN B_{12}

- Liver, meat
- Chicken, turkey
- Fish
- Eggs
- Milk, cheese, yoghurt

VITAMIN C

- Citrus fruits, W.I. cherry, guava, pineapple
- Kiwi fruit, strawberries, other berries,
- Cantaloupe, papaya/paw paw
- Leafy green vegetables***
- Broccoli, cabbage, all peppers, tomatoes

VITAMIN E

- Almonds, sunflower seeds, peanuts
- Leafy green vegetables***
- Whole grains**, wheat germ
- Safflower oil, sunflower oil, corn oil, wheat-germ oil

FOLIC ACID

- Liver, kidneys
- Legumes*
- Oranges, cantaloupe
- Leafy green vegetables***
- Cabbage, corn, green peas, avocado
- Whole grains**
- Sunflower seeds, nuts, peanuts

ESSENTIAL FATTY ACIDS

- Corn oil, sunflower oil, soy oil, linseed oil, safflower oil, wheat germ oil
- Wheat germ
- Fish

*** LEGUMES**
Channa/chick peas, black beans, white beans, kidney beans, lima beans, red beans, pinto beans, soybeans, lentils, black-eyed peas, pigeon peas, split peas, peanuts.

****WHOLE GRAINS**
Whole-grain breads, whole-grain pasta, hot and cold whole-grain cereals, brown rice@, whole-wheat couscous, barley, oats.

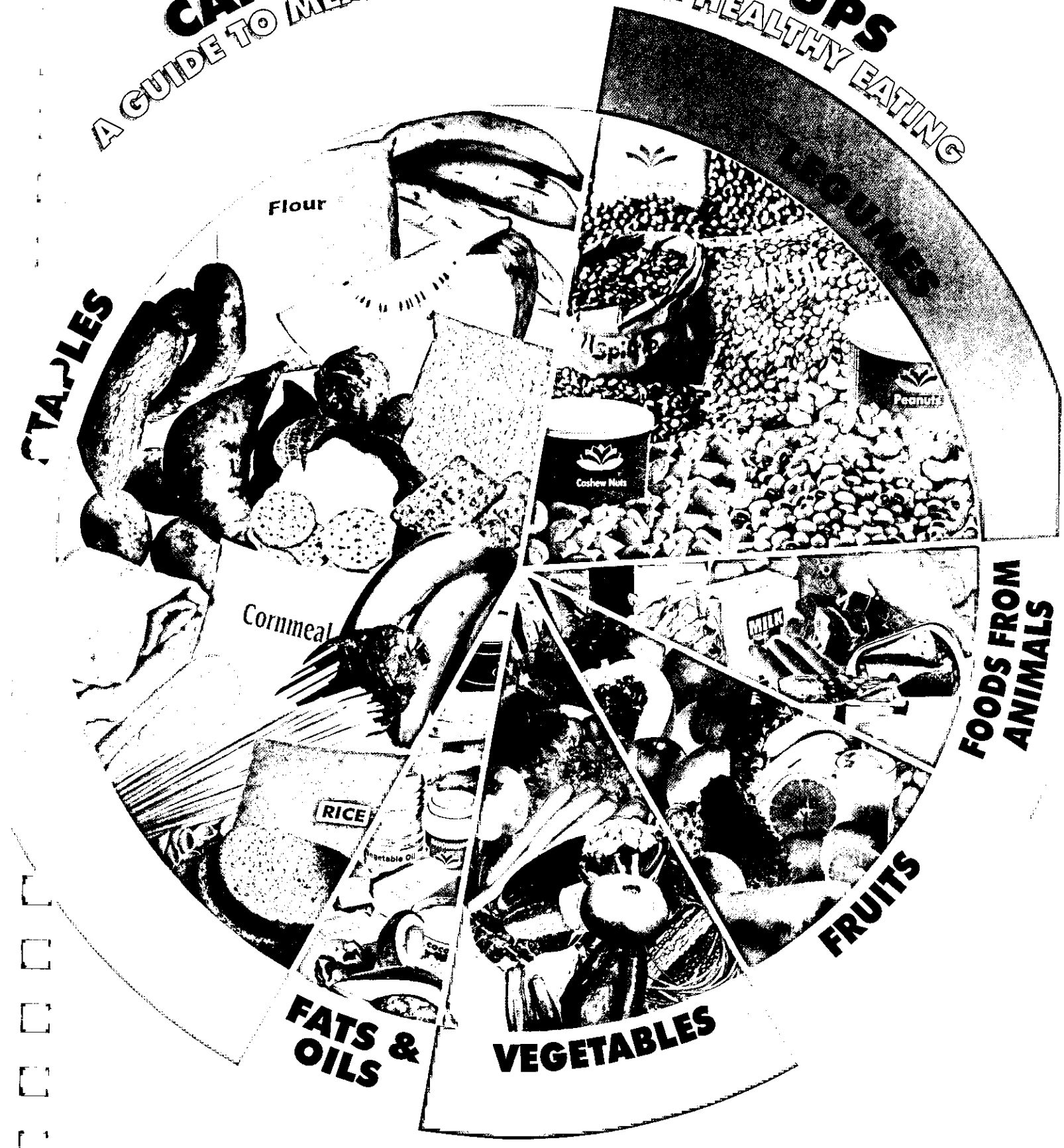
*****LEAFY GREEN VEGETABLES**
Spinach, watercress, kale, mustard greens, parsley (less rich in calcium than the others).

@ Note that brown rice is not the same as parboiled rice.

Appendix III

CARIBBEAN FOOD GROUPS

A GUIDE TO MEAL PLANNING FOR HEALTHY EATING



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Designed by: Creative Multimedia Solutions, 43 Fifth St., Barataria, Trinidad W.I. Tel/Fax (868) 675-1333

– *Appendix IV* –

WHERE TO FIND HELP AND MORE INFORMATION IN YOUR COUNTRY

ANGUILLA

National HIV/AIDS Committee
Mr. Sutcliffe Hodge
Chairman National HIV/AIDS Committee
P.O. Box 752
The Valley
Email: sutcliffehodge@cwaxacwplc.com
Or: hodges@anguillanet.com
Tel (cellular): 264 -235-7008
(work): 264-497-2650 or 3100
Fax: 264-497-2501

National HIV/AIDS Programme
Mrs. Patricia Beard
Coordinator
National HIV/AIDS Programme
P.O. Box 277
The Valley
Email: aidsresearch@anguillanet.com
Or: triciabeard@hotmail.com
Tel (home): 264-497-3348 or 264-235-3348
(work): 264-497-2540
Fax: 264-497-5486

Althea Turner
Cul De Sac
Blowing Point

ANTIGUA/BARBUDA

AIDS Secretariat
Ministry of Health & Social Improvement
Ramco Building
Independence Drive, St. John's
Tel/Fax: 268-462-5039
E-mail: aidssec@candw.ag
Opening hours:
8.00am - 4.30pm – Monday to Thursday
8.00am - 3.00pm – Fridays

Health, Hope & HIV Foundation
Ministry of Health & Social Improvement
Ramco Building, Independence Drive
St. John's
Tel/Fax: 268-462-5039
E-mail: aidssec@candw.ag
Opening hours:
8.00am - 4.30pm – Monday to Thursday
8.00am - 3.00pm – Fridays

Superintendent, Community Nursing Services
St. John's Health Centre
All Saints Road, St. John's
Tel.: 268-462-1492/1493
Opening hours:
8.00am - 4.30pm – Monday to Thursday
8.00am - 3.00pm – Fridays

Dietitian
Holberton Hospital
Queen Elizabeth Hospital
St. John's

Health Education Unit
Factory Road
St. John's
Tel: 268-462-0158
Opening hours:
8.00am - 4.30pm – Monday to Thursday
8.00am - 3.00pm – Fridays

CAYMAN ISLANDS

Cayman AIDS Foundation
c/o Jennison Nunez
P.O. Box 11213 APO
Grand Cayman
Tel.: 345-949-6220
Fax: 345-946-8741
Email: jennison-nunez@nutual.com

Public Health Services
Cayman Islands Health Services Authority
c/o Mrs. Pauline Ffrench
P.O. Box 915 GT
Grand Cayman
Tel.: 345-914 -2646/2631
Fax: 345-945-2153
Email: pauline.ffrench@gov.ky *or*
Pffrench@candw.ky

GUYANA

Artistes-In-Direct-Support (A.I.D.S.)
Mrs. Desiree Edghill-Adams
223 Wellington Street 7 South Road
Georgetown
Tel: 592-225-5112

Hope For Life – Region 7
Mr. Ivor Melville
40 Second Avenue
Bartica
Tel: 592-455-2462/2365

G-Plus
Ms. Dusilley Cannings
35E North Road Lacytown
Georgetown
Tel: 592-223-0930-1

Guyana Human Rights Association (GHRA)
Ms. Merle Mendonca
56B Hadfield Street
Georgetown
Tel: 592-227-4911

Guyana Responsible Parenthood Association (GRPA)
Mrs. Gillian Butts-Garnett
70 Quamina Street
Cummingsburg
Georgetown
Tel: 592-225-0738

Lifeline Counselling Services
Mr. Jimmy Bhojedat
357 Cummings Street
Georgetown
Tel: 592-226-8684/231-7289

Lighthouse Support Group
Mr. Elmar Wishart
c/o NAPS
Hadfield Street & College Road
Tel: 592-226-5371

Project Outreach
Ms. Avette Richards
165 Alexander & Barr Streets
Kitty, Georgetown
Tel: 592-226-1884/227-5233

Volunteer Youth Corps (VYC)
Mr. Kenroy Roach
235 South Street
Lacytown, Georgetown
Tel: 592-223-7404/223-7966

Youth Challenge Guyana (YCG)
Mr. Simone Sills/Beverley Edwards
116-117 Cowan Street
Kingston, Georgetown
Tel: 592-225-0129

Hands International Guyana – Cry of AIDS Project
Ms. Patricia Habibullah/Ms. Natasha Habibullah
6 Oleander Gardens
East Coast of Demerara
Tel: 592-222-2406

Suddle Hospital – Region 2
Dr. Brown
Suddle Hospital
Tel: 592-774-4560

Candle In The Wind – Region 3
Dr. Holly Alexander
c/o West Demerara Regional Hospital
Tel: 592-264-2254/264-2264

Regional Aids Committee – Region 5 & 6
Ms. Bernadette Richmond
Committee Member
Mahaica
Tel: 592-221-2209

Comforting Hearts – Region 6
Ms. Cheryl Mars
Mission Chapel Family Life Centre
Coopers Lane
New Amsterdam
Tel: 592-333-4722/333-6587

Linden Care Foundation – Region 10
Medex Hazel Benn
Regional Guest House
Burnham Drive, Christianburg
Tel: 592-442-6269/442-0588

Regional Aids Committee – Region 10
Dr. Pansy Armstrong
c/o Linden Regional Office
Tel: 592-444-6707

Entertainers Making A Difference (E-MAD)
Mr. Neil Cadogan (Cody)
166 Section M
Campbellville

Guyana Red Cross Society
Ms. Dorothy Fraser
Eve Leary,
Georgetown
Tel: 592-226-0384/226-5174

United States Agency For International Development (USAID)
Mr. Bill Slater
Subryanville, Kitty
Tel: 592-225-7315/2257318-9

National AIDS Programme Secretariat
Dr. Morris Edwards
Hadfield Street & College Road
Georgetown
Tel: 592-226-5371/227-8683
AIDS Hotline: 592-223-7138-9

Genito-Urinary Medicine (GUM) Clinic
Dr. Michael Ali
Georgetown Public Hospital
Middle Street
Georgetown
Tel: 592-226-0664/226-5174

National AIDS Committee
Mrs Desiree Edghill-Adams
c/o Guyana Human Rights Association
56B Hadfield Street
Georgetown
Tel: 592-225-112

Hope for All
Ms. Shondell Butters
Public Health Building
Suddie, Esseqoibo Coast
Tel: 592-774-4227, 774-4360

Friend of St Francis
Mr Arlex Foster
Portuguese Quarters
Port Mourant
Corentyne Berbice
Tel: 592-337-4090, 337-2446

Varqa Foundation
Mr Brian O'Toole
122 Parade Street,
Kingston, Georgetown
Tel: 592-226-5781

UNICEF Guyana
Dr Sreelakshmi Gururaja
72 Brickdam
Georgetown
Tel: 592-227-3662

Pan American Health Organisation (PAHO)
Dr Bernadette Theodore-Gandi
Brickdam, Georgetown
Tel: 592-225-3000

JAMAICA

CHARES UHWI,
UHWI, Mona Kingston
Tel: 876-977-6921
Fax: 876-977-6921
Email: ramsayhope@hotmail.com

JN+
14 South Avenue
Kingston 10
Tel: 876-826-0304
Email: jnplusgipa@hotmail.com

Jamaica Red Cross
Central Village
St. Catherine
Tel: 876-984-7860-3
Fax: 876-984-8272
Email: JRCS@infrochan.com

Jamaica AIDS Support
4 Upper Musgrave Road
Kingston 5
Tel: 876-978-3727
Fax: 876-978-7876
Email: headoffice@jamaica-AIDS-support.zzn.com

Jamaica AIDS Support
Fort Haven, 1 Queens Drive
Montego Bay, St. James
Tel: 876-971-4333
Fax: 876-940-7386
Email: montegobay@jamaica-AIDS-support.zzn.com

Jamaica AIDS Support
P.O. Box 133
Ocho Rios, St. Ann
Tel: 876-974-7236/979-2198
Fax: 876-795-2187
Email: ochorios@jamaica-AIDS-support.zzn.com

HIV/AIDS Helpline
Tel: 876-967-3830/3764
Free Tel: 1-888-991-4444
Ministry of Health
Epidemiology Unit
4th Floor, 2-4 King Street
Kingston
Tel: 876-967-1100/1103/1105/1092
Fax: 876-967-1280
Website: http://www.jamaicanap.org

Behaviour Change Communication Manager
Ministry of Health
4th Floor, 2-4 King Street
Kingston
Tel: 876-967-1100/1103/1105/1092
Fax: 876-967-1280
Email: byfieldl@moh.gov.jm

National Family Planning Board
5 Sylvan Avenue
Kingston 5
Tel: 876-968-1633/906-9707/754-4557

Marge Roper Hotline:
Kingston
Tel: 876-968-1634-35

Family Counselling Centre
56 Windsor Road
St. Ann's Bay
Tel: 876-972-1805
Email: gifmour@email.com

Guidance and Counselling
Ministry of Education
Caenwood Centre
37 Arnold Road,
Kingston 5
Tel: 876-922-9370/967-5193
Fax: 876-967-5193

Mustard Seed Community
1 Mahoe Drive
Kingston 11
Tel: 876-937-0331
Fax: 876-923-6000

Victim Support Group
9 Eureka Crescent
Kingston 5
Tel: 876-906-8548/8554
Fax: 876-922-5236

Ionie Whorms Innercity Counselling Centre (IWICC)
155 Church Street
Kingston
Tel: 876-948-2948 (Mon.-Fri. 9AM-5PM)
Tel: 876-948-3805 (after 5PM)
Email: iwicc@yahoo.com

Hope Worldwide Jamaica
7 Oxford Park Avenue
Kingston 5
876-754-4446; 876-754-4012
Email: hopeja@cwjamaica.com
Website: www.hopeww.org

Comprehensive Health Centre
55 Slipe Pen Road
Kingston 5
Tel: 876-922-2095/924-9673

Windward Road Health Centre
18 Paradise Street
Kingston 16
Tel: 876-938-3910

Beth Jacobs Clinic
14 Kingston Street
St. Ann's Bay, St. Ann
Tel: 876-972-2259

AIDS Prevention and Education Campaign
517 Eltham View
Spanish Town,
St. Catherine
Tel: 876-983-5370
Email: yvonne216@hotmail.com

Brothers of the Poor
7 Laws Street
Kingston
Tel: 876-922-2996

Children First
9 Monk Street
Spanish Town, St. Catherine
Tel: 876-984-0367

Poor Relief Department
65 Hanover Street
Kingston
Tel: 876-922-6936-7
Fax: 876-967-3470

Children's Services Division
The Ministry of Health
2-4 King Street
Kingston
Tel: 876- 922-8857/8461
Fax: 876- 924-9401

YOUTH NOW
The Ministry of Health
5th Floor, 2-4 King Street
Kingston
Tel: 876-967-1100/1103/1105 Ex: 2051
Fax: 876-967-1280

West Help and VIP
c/o St. James Health Department
Montego Bay, St. James
Tel: 876-979-7820
Fax: 876-979-7802

Jamaica Fountain for Children
119 Old Hope Road
Kingston
Tel: 876-977-0040
Fax: 876-977-0040

The Salvation Army
3 Waterloo Road
Kingston 10
Tel: 876-929-6190-2
Fax: 876-929-7560

Caribbean Conference of Churches
14 South Avenue
Kingston 10
Tel: 876-926-7007/7114
Fax: 876-926-6990
Email: ccchurch@cwjamaica.com

Planning Institute of Jamaica
10-16 Grenada Way
Kingston 5
Tel: 876-906-4386/4453

Adolescent Reproductive Health
2–4 King Street
Kingston
Tel: 876-967-1100/1105
Fax: 876-967-1280

ACOSTRAD
c/o 2–4 Kingston Street
Tel: 876-944-2410 Ext. 2145
Email: gram@kasnet.com

JFLAG
Tel: 876-978-3727
Fax: 876-978-7876
Email: jFlay@hotmail.com

MONTSERRAT

Health Promotion Unit
Health Department
St. Johns
Tel: 664-491-2836/2843
Fax: 664-491-6313/3131

ST. CHRISTOPHER AND NEVIS

AIDS Action Committee (AAC)
Pearline Elmes
Chairperson
c/o Eastern Caribbean Central Bank
P.O. Box 89, Basseterre
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Tel: (cell) 869-662-3464
Fax: 775-458-8947
Email: factts99@caribsurf.com

Ministry of Health & Environment
P.O. Box 186
Church Street, Basseterre
Tel: 869-465-2521
Fax: 869-466-8574
Email: minhwa@caribsurf.com

TRINIDAD AND TOBAGO

HOME CARE SERVICES

- **CARITAS AIDS Ministry**
  Diego Martin Main Road
  Diego Martin
  Tel: 868-637-8689

- **Saint Vincent de Paul Society**
  20 Duncan Street
  Port-of-Spain
  Tel: 868-623-4926

- **Heart to Heart Ministries**
  c/o South Caribbean Conference of
  Seventh Day Adventist
  P.O.Box 66, Port-of-Spain OR
  Dean Street,
  St. Augustine
  Tel: 868-662-5356/6121; 643-2208

- **Cyril Ross Home for HIV+ Children**
  El Dorado Road
  Tunapuna
  Tel: 868-662-8975

SOCIAL SUPPORT AND COUNSELLING

- **Community Action Resource (CARE)**
  41 New Street
  Port-of-Spain
  Tel: 868-625-0632

- **Friends for Life**
  33 Murray Street, Woodbrook
  Tel: 868-628-6492

- **National AIDS Hotline**
  P.O. Box 472
  Port-of-Spain
  Tel: 25 AIDS 868-243-7064-6

- **Queen's Park Counselling Centre (QPCC&C)**
  5 Queen's Park East
  Port-of-Spain
  Tel: 868-625-3944

- **Rapport**
  43–45 Frederick Street
  Port-of-Spain
  Tel: 868-627-0841

- **National AIDS Programme**
  43–45 Frederick Street
  Port-of-Spain
  Tel: 868-623-1166

- **The Community Chatroom Experience**
  33 Murray Street
  Woodbrook
  Tel: 868-628-6492

- **Tobago AIDS Society**
  P.O. Box 226, Room 14, Fairfield Complex
  Bacelot Street, Scarborough
  Tel: 868-635-1024
  Email: fotasonline@yahoo.com
  Website: www.unomundo.org/caribbean/
  tobago1 aids
  Fotasonline.org

- **Family Planning Association of Trinidad and Tobago**
  79 Oxford Street
  Port-of-Spain
  Tel: 868-623-4764 / 5169

- **OASIS Foundation**
  c/o Phillips Plaza
  Burnett Street
  Scarborough
  Tel: 868-635-1088

HIV / AIDS SPECIFIC CARE

- **Medical Research Foundation**
  7 Queen's Park East
  Port-of-Spain
  Tel: 868-623-5834 /8512

- **Queen's Park Counselling Centre (QPCC&C)**
  5 Queen's Park East
  Port-of-Spain
  Tel: 868-625-3944

- **San Fernando General Hospital**
  Independence Avenue
  San Fernando
  Tel: 868-652-2200

- **Scarborough Health Centre**
  Robinson Street
  Scarborough, Tobago
  Tel: 868-638-2295

HIV / AIDS SPECIFIC RESEARCH

- **Community Action Board of T & T Vaccine Trials (CAB)**
  c/o T & T Registered Nurses Association
  Professional Services Building
  4 Fitzblackman Drive
  Wrightson Road, Port-of-Spain
  Tel: 868-623-1567

- **Medical Research Foundation**
  7 Queen's Park East
  Port-of-Spain
  Tel: 868-623-5834 / 8512

INFORMATION ON AIDS SPECIFIC POLICIES/LECTURES

- **Artist Against AIDS**
  Tel: 868-624-1302

- **Ministry of Health**
  Tel: 868-627-0010

- **National AIDS Programme**
  Tel: 868-623-1166

- **UNAIDS**
  Tel: 868-623-7057

TURKS & CAICOS ISLAND

National AIDS Program
Church Folly
Grand Turk
Tel: 649-946-1675

or

National AIDS Program
Butterfield Square
Downtown
Providenciales
Tel: 649-946-4984

– *Appendix V* –

ANTI-RETROVIRAL MEDICATIONS: SIDE EFFECTS AND FOOD-DRUG INTERACTIONS

Anti-retroviral Medication	Side Effects	Dietary Recommendations
Nucleoside reverse transcriptase inhibitors:		
Zidovudine (Retrovir, AZT)	Nausea, vomiting, taste changes, fatigue, abdominal pain, appetite changes, constipation	Take with food to decrease GI side effects. High fat foods decrease absorption. Avoid alcohol
Lamivudine (3TC, Epivir)	Nausea, vomiting, abdominal cramps, diarrhoea	Take with food to decrease side effects. Avoid alcohol.
Combivir (3TC/AZT)	Similar to AZT or 3TC alone.	Take with food to decrease GI side effects.
Didanosine (DDI, Videx)	Pancreatitis, nausea, diarrhoea, stomatitis, dry mouth, flatulence/gas, decreased taste.	Take on an empty stomach 1 hour after or 2 hours before a meal
Abacavir (Ziagen, ABC)	Anorexia, nausea, vomiting, abdominal pain, diarrhoea	No effect of food. Avoid alcohol.
Trizivir (ABC, 3TC, AZT)	See individual profiles	Take with low fat meal. Avoid alcohol.
Stavudine (d4T, Zerit)	Anorexia, stomatitis, nausea, vomiting, abdominal pain, diarrhoea	Food has no effect. Avoid alcohol.
Non-nucleoside reverse transcriptase inhibitors:		
Nevirapine (Viramune NVP)	Stomatitis, nausea, vomiting, abdominal pain	Food has no effect. Avoid alcohol.
Efavirenz (Sustiva, EFV)	Nausea, vomiting, abdominal pain, flatulence, diarrhoea	Take with a low fat meal to improve tolerance. Avoid alcohol.

Antirtetroviral Medication	Side Effects	Dietary Recommendations
Delavirdine	Dry mouth, stomatitis, taste changes, tongue oedema, bleeding gums, dysphagia, gastritis, GI bleeding, colitis, diarrhoea, constipation, dyspepsia	No effect of food. Antacids can decrease absorption.
Protease Inhibitors		
Indinavir (Crixivan, IDV)	Nausea, vomiting, abdominal pain, fatigue, diarrhea, dry mouth, taste changes, sore throat	Take on an empty stomach or with a low-fat, low-protein snack (3 grams fat, 6 grams protein, 300 kilocalories. Avoid grapefruit juice. Drink at least 1.5 litres fluid daily.
Indinavir with Ritonavir	See individual profiles	Food has little effect.
Saquinavir (Invirase, Fortovase, SQV)	Nausea, diarrhoea, abdominal pain, mouth ulceration, taste changes, diarrhoea, constipation, flatulence	Avoid high fat foods. Avoid alcohol. Grapefruit juice will increase drug concentration. Avoid St John's Wort
Ritonavir (Norvir RTV)	Nausea, diarrhoea, vomiting, muscle weakness, taste changes.	Take with food to decrease side effects. Avoid alcohol. Avoid St John's Wort
Nelfinavir (Viracept, NFV)	Diarrhoea, flatulence, lactose intolerance, nausea, abdominal pain	Take with food that includes protein. Avoid bowel irritants.
Kaletra (Lopinavir/Ritonavir)	Nausea, abdominal pain, diarrhoea	Take with high fat meal.
Nucleotide Reverse Transcriptase Inhibitors		
Tenofovir	Abdominal pain	Take with meals to increase AUC and bioavailability

– *Appendix VI* –

DILUTING MILK FOR INFANTS

Home-prepared formula can be made from fresh cow's or goat's milk, powdered full-cream milk or evaporated milk. All of these products should be modified for infants under 6 months of age by diluting the fresh or reconstituted milk with cool, boiled water and adding sugar. The following guide should be used:

100 mL full-cream liquid milk***

50 mL cool, boiled water

10 g (2 teaspoons) sugar

*** 50 mL full-cream evaporated milk + 50 mL water = 100 mL full cream milk.

2 level Tablespoons full-cream powdered milk is approximately equivalent to 125 mL liquid milk.

DO NOT USE ANY TYPE OF CONDENSED MILK

Glossary

A quick guide to HIV/AIDS-related terms

Word	What it means
AIDS-related complex	A set of symptoms associated with being infected with the HIV virus that could progress to the development of AIDS.
Anaemia (Anemia)	Reduction in the size or number of red blood cells, the quantity of hemoglobin or both, resulting in the blood not being able to carry sufficient oxygen.
Anorexia	Lack or loss of appetite for food.
Antibody	A protein produced in the body that fights against an antigen, which is a protein substance that is foreign to the blood.
Antigen	A protein substance that is foreign to the blood. It stirs up the formation of the specific antibody.
Artificial feeding	Feeding an infant with breastmilk substitutes – formula.
Beta carotene	A yellow-orange plant pigment which may be converted in the body to Vitamin A. The best food sources are the yellow and orange fruits and vegetables, as well as leafy green vegetables.
Bottle feeding	Feeding an infant from a bottle with whatever is in the bottle, including expressed breastmilk.
Breastmilk substitute	Any food being marketed or represented in any way as a partial or total replacement for breastmilk, whether or not it is suitable for that purpose.
CD4	A protein receptor on the cell surface to which the HIV virus binds and replicates.
CD4 Lymphocytes	A specific type of white blood cells that decrease in number during HIV infection.

Word	What it means
Commercial infant formula	A breastmilk substitute made by the industry to satisfy the nutritional requirements of infants up to 6 months of age.
Complementary feeding	Any home or commercially prepared food that is used as an addition to either breastmilk, home prepared or commercial infant formula to help meet the nutritional requirements of infants from about 6 months old.
Constipation	Abnormal, infrequent and difficult passage of stool.
Consultation	Process of fact-finding, dialogue between or among individuals, and arriving at a plan of action. You consult with your doctor and other health professionals.
Cup feeding	Feeding an infant from an open cup with whatever is in the cup, even breastmilk.
Diarrhoea	Passage of three or more watery and unusual stools daily.
Diet	The total amount of liquid and solid food recommended or usually eaten by an individual.
Dietary fibre	Plant-based non-digestible substances present in food, that humans do not have any enzymes to break down these substances during digestion.
Dietitian	A person with specialized professional education and training, with at least a Bachelor of Science degree, who is skilled at assessing the nutritional needs of a person and suggesting ways that food can assist in the treatment of diseases/symptoms. The dietitian can also manage foodservice systems to provide nutritious meals.
Dysphagia	Difficulty swallowing.
Dyspnea	Labored or difficult breathing.
Dysgeusia	Loss of sense of taste.
Early breastfeeding	Feeding breastmilk during the first 3 weeks of life.
Early postpartum	The first 3 to 6 weeks after delivery.

Word	What it means
Electrolyte	A substance which when dissolved in water enables the water to conduct an electric current. Some of the most common in the human body are salts of minerals such as sodium, potassium, calcium, and chloride.
Exclusive breastfeeding	Giving an infant no other food or drink apart from breastmilk (including expressed breastmilk)- not even water. Drops or syrups consisting of vitamins, mineral supplements or medicines are accepted.
Gastrointestinal (G.I.) tract	Refers to the stomach and intestines, more specially to the system of tubes and passage-ways used for digestion, absorption of food and elimination of waste matter.
Haemoglobin (Hemoglobin)	Oxygen carrying part of the red blood cells.
HIV-negative	A person who receives a negative result after taking the test. Person is assumed to be uninfected.
HIV-status unknown	A person who has not taken the test or who does not know the result of the test.
Home-prepared formula	Infant formula prepared at home from fresh or processed animal milks, suitably diluted with water and sugar added.
Immune system	A network of chemicals, cells, tissues and organs found throughout the body which is designed to protect the body from germs, viruses and bacteria.
Infant	A child from birth to 12 months of age.
Intra-partum	The period during labor or delivery.
Late postnatal transmission	A breastfed child who becomes infected with HIV usually after 3 to 6 months of age.
Lesion	Injury to body tissue that results in a change in its make-up or function.
Lymphocytes	White blood cells (B cells and T cells) of the immune system that protect the body from germs.

Word	What it means
Mixed feeding	Feeding breastmilk and some other milk.
Mother-to-child transmission (MTCT)	Infected mother spreading the virus to her infant during pregnancy, delivery or breastfeeding; also known as "vertical transmission".
Nausea	Feeling that you are going to vomit ("throw-up").
Neonatal	The period immediately after birth and continuing through the first month of life.
Nutritional assessment	Scientific process used by nutrition professionals to determine an individual's nutritional status by analyzing anthropometric (body measurements) data, the individual's clinical, dietary and social history, biochemical data and drug-nutrient interactions.
Nutritionist	A person with specialized professional education and training, with at least a Bachelor of Science degree. The person is trained to initiate health promotion programs to uphold wellness and prevent disease and is also skilled at conducting nutritional assessments.
Opportunistic infection	An infection that does not ordinarily cause disease. It becomes disease-causing under certain circumstances such as an impaired immune function.
Oesophagus (Esophagus)	The muscular tube that connects the pharynx (cavity behind the nasal cavities, mouth and larynx) to the stomach. impaired immune function.
Recommended Dietary Allowances	Daily recommended intakes of selected nutrients considered adequate to meet the needs of almost all healthy persons.
Regurgitation	Return of undigested food from the stomach through the mouth ("spitting up").
Replacement feeding	The process of feeding a child who is not receiving any breastmilk with a diet that provides all the nutrients the child needs.
Sepsis	The presence of disease-causing micro-organisms or their toxins within the blood stream.

Word	What it means
Seroconversion	The body's response to HIV by making antibodies. After this happens, a blood test for the HIV antibody will read positive. This usually happens about three months after infection with HIV.
Sign(s)	Seen by others.
Stomatitis	Generalised inflammation of the oral mucosa.
Symptom(s)	A feeling or feelings as a result of a disease or situation.
T-cells	One type of white blood cells/lymphocytes. The two main types of T-cells are T-4 (CD4) and T-8 (CD8) cells.
T4 cells/CD4 cells	Special group of white blood cells (T cells) to which the HIV virus is attracted and causes the immune system not to respond to infection. The number of CD-4 cells in your blood is an indication of how strong your immune system is.
Virus	A very small germ that can live and multiply only within living cells. Eventually these cells become affected and do not function as they should.
Viral infection	A sickly state caused by a virus entering the body.
Viral load	The amount of the HIV present in the blood.
Wet nursing	Breastfeeding by a woman other than the infant's mother.
Xerostomia	Dryness of the mouth.

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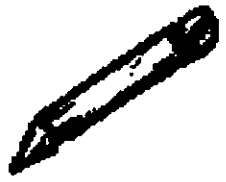
■ *My Personal Notes*



■ *My Personal Notes*

The Caribbean Food and Nutrition Institute (CFNI), founded in 1967, has as its goal the improvement of the food and nutrition situation in its member countries[1] through five types of activities, namely: service, education and training, information dissemination, coordination and research. Each activity is carried out in close collaboration with member governments.

CFNI is a specialized centre of the Pan American Health Organization (PAHO) which represents the World Health Organization (WHO) in the Region of the Americas. In addition to its parent body, PAHO/WHO, the Institute is also responsible to an Advisory Committee on Policy which the member governments form the majority. Technically it is guided by a Scientific Advisory Committee the members of which are selected on the basis of their technical expertise in the field of food and nutrition.

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[1]Anguilla, Antigua, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Christopher-Nevis, Saint Lucia, St. Vincent, Suriname, Trinidad & Tobago, Turks & Caicos Islands