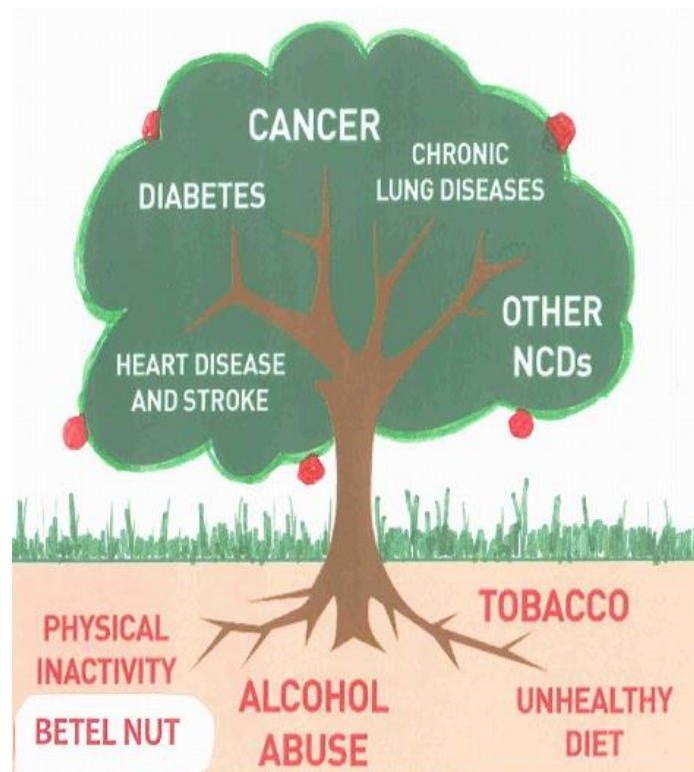


Healthy Village Facilitator's Guide

Non-Communicable Diseases (NCDs) and Nutrition



Ministry of Health and Medical Services, Solomon Islands

May 2021

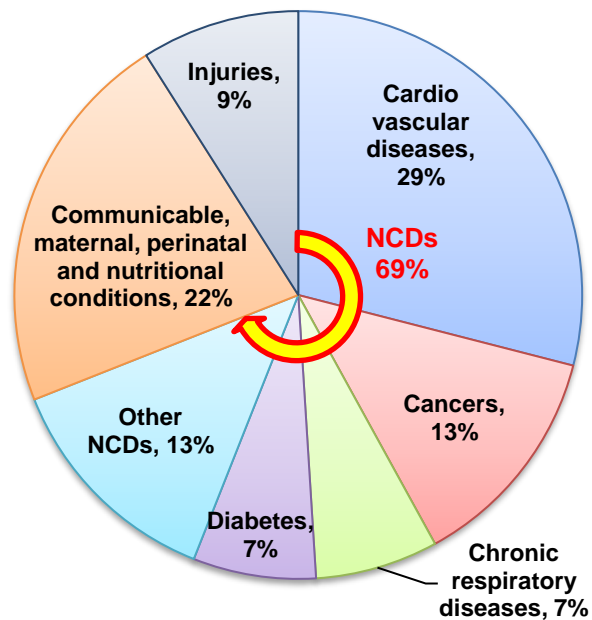
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1. Non-Communicable Diseases (NCDs)

1.1 What are Non-Communicable Diseases?

- Non-communicable diseases (NCDs) are diseases that are not transmitted (spread) directly from one person to another.
- NCDs are also known as **lifestyle diseases or chronic diseases**.
- The majority of these diseases are caused by the way people live and are preventable.
- NCDs are the leading cause of death in the Solomon Islands.
 - About 69% of all deaths are caused by cardiovascular diseases, cancer, chronic respiratory diseases (CRDs) and diabetes (NCD/WHO 2018).
- Every day one or two dies from a heart attack or stroke in the Solomon Islands.
- Every third day some one's foot is amputated (cut off) in the Solomon Islands.
- Our country is in serious crisis of NCDs since 2011.

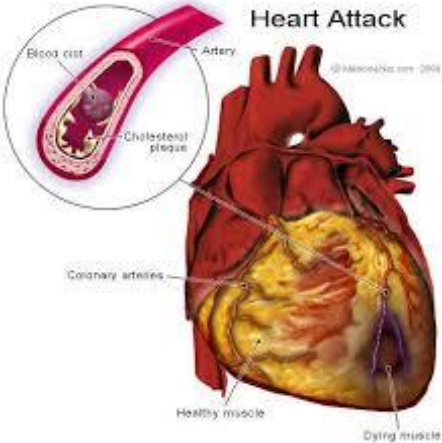


Main Causes of Death in the Solomon Islands

Source: WHO 2018 NCD Country Profile

1.2 What are the 4 main types of Non-Communicable Diseases?

1) **Heart Diseases and Stroke**
(CVD: Cardio Vascular Diseases)



Dying heart muscle

2) **Chronic Respiratory diseases**
(COPD: Chronic Obstructive Pulmonary Disease and Asthma)



Asthma inhaler

3) **Cancers**



Mouth cancer

4) **Diabetes (Sick Sugar)**



Amputated leg

1.3 What are the causes of Non-Communicable Diseases?

Most common causes of non-communicable diseases (NCDs) or lifestyle diseases include:



Unhealthy diet (poor nutrition)



Physical inactivity



Tobacco use (smoking)



Alcohol consumption



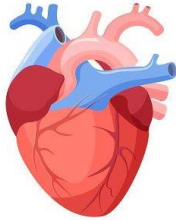
Betel nut chewing

How do Non-Communicable Diseases start?

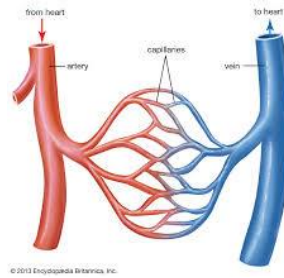
- They start from a person living an unhealthy lifestyle.
- They are not transmitted from person to person.
- They grow slowly and stay on for very long.
- They affect many important organs in the body:
 - Brain, heart, arteries, blood vessels, lungs, stomach, intestines, liver, pancreas, spleen, kidneys, bladder, uterus, ovaries and prostate (See Annex 1)
- They may not show any signs or symptoms initially.
- When symptoms appear, it is late.

2. Cardiovascular Diseases (CVDs)

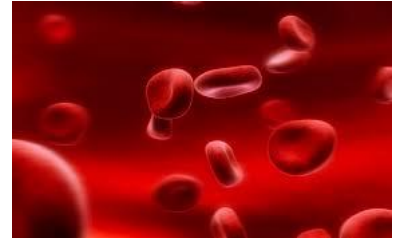
2.1 What is Cardiovascular System?



heart

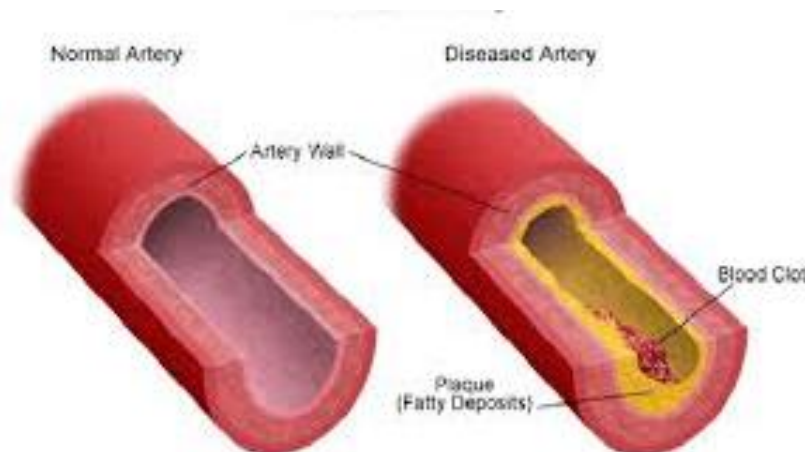


blood vessel






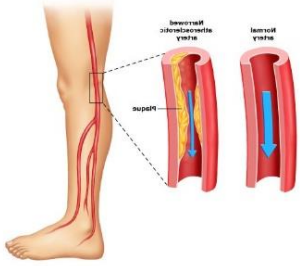
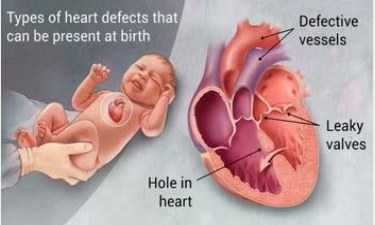
blood

- 1) The important parts of the cardiovascular system are the **heart**, **blood vessels** and **blood**.
- 2) The heart is **like a pump**.
- 3) The heart pumps oxygenated (fresh) blood to the body cells and deoxygenated (used) blood to the lungs to be re-oxygenated (make fresh).
- 4) A blood vessel is a tube through which nutrients and oxygen are delivered to the body cells and waste matters (rubbish) are taken away from the same cells.
- 5) Any serious damage to the blood vessels and problem to the heart are often deadly.



blood vessels

2.2 What are CVDs?

<p>Heart attack</p>	<p>Disease of blood vessels supplying the heart muscles</p>	
<p>Stroke</p>	<p>Disease of blood vessels supplying the brain</p>	
<p>Heart failure</p>	<p>Decrease of heart's pumping power</p>	
<p>Peripheral arterial disease</p>	<p>Disease of blood vessels supplying the arms and legs</p>	
<p>Congenital heart disease</p>	<p>Existing heart defects at birth</p>	

2.3 What are the common signs and symptoms of CVDs?

- It is essential to know the common symptoms and signs of cardiovascular diseases or heart diseases:



Short of breath



Severe pain or discomfort in the chest



Rapid and irregular heart beat



Dizziness and weakness



Severe headache



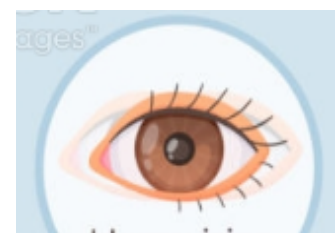
Confusion, difficulty speaking or understanding speech



Loss of strength in arms and legs



Dropping face, arm, leg especially on one side of the body



Difficulty of seeing with one or both eyes



Fainting or unconsciousness

- A heart attack and stroke can occur without any advance warning.
- You must urgently seek medical help from a nurse or doctor if you have any of the above CVD signs or symptoms.
- For a healthy life, avoid the NCD risk factors and do periodical medical check to know your health status.



Hypertension

What is Hypertension (High Blood Pressure)?

- Hypertension or high blood pressure, is a condition in which the blood vessels have continuously have high pressure.
- The heart pumps blood to all parts of the body in the vessels. Each time the heart pumps blood into the vessels, blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries). The higher the pressure, the harder the heart has to pump.
- A normal blood pressure is **between 90/60mmHg and 120/80mmHg**. High blood pressure is **140/90mmHg or higher**.



What causes High Blood pressure?

- Smoking
- Being obese or overweight
- Diabetes
- Sitting and inactive lifestyle
- Lack of physical activity
- High salt intake



- Excessive alcohol intake
- Aging
- Chronic kidney disease

Symptoms of High Blood pressure

- Severe headaches
- Nose bleed
- Fatigue or confusion
- Vision problems
- Chest pain
- Difficulty breathing
- Irregular heartbeat
- Blood in the urine



Treatment of High Blood pressure

- Eat healthy foods
- Less salt in your meals
- keep yourself at a healthy weight
- Increase physical exercise
- Don't take alcohol
- Don't smoke
- Manage stress by relaxing and exercise



Prevention of High Blood Pressure

- Eat healthy diet
- Keep yourself at a healthy weight
- Be physically active
- Do not smoke
- Limit or don't take alcohol
- Get enough sleep

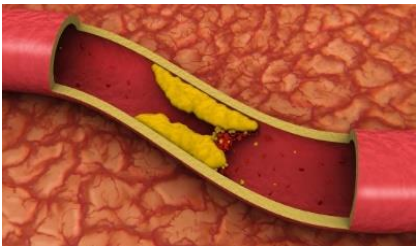


2.4 What are the common causes of CVDs?

CVDs causes and risk factors are as follows:



Blockage of the blood vessel



High cholesterol or fat



Unhealthy diet



Physical inactivity



Tobacco smoking



High blood pressure



Overweight or obese



Diabetes



Family history



Excessive alcohol drinking

3. Cancers

3.1 What is Cancer?



bowel cancer

- Cancer is the uncontrolled growth of cells in the body.
- It can spread to other parts and organs of the body.
- It can affect almost any part of the body and present itself differently.
- It is important to detect cancer early and refer to the next level of care.

3.2 What are the common causes/risk factors of cancer?

- Cancer causes/risk factors are as follows:



Tobacco smoking



Alcohol consumption



Betel nut chewing



Physical inactivity



Unhealthy diet

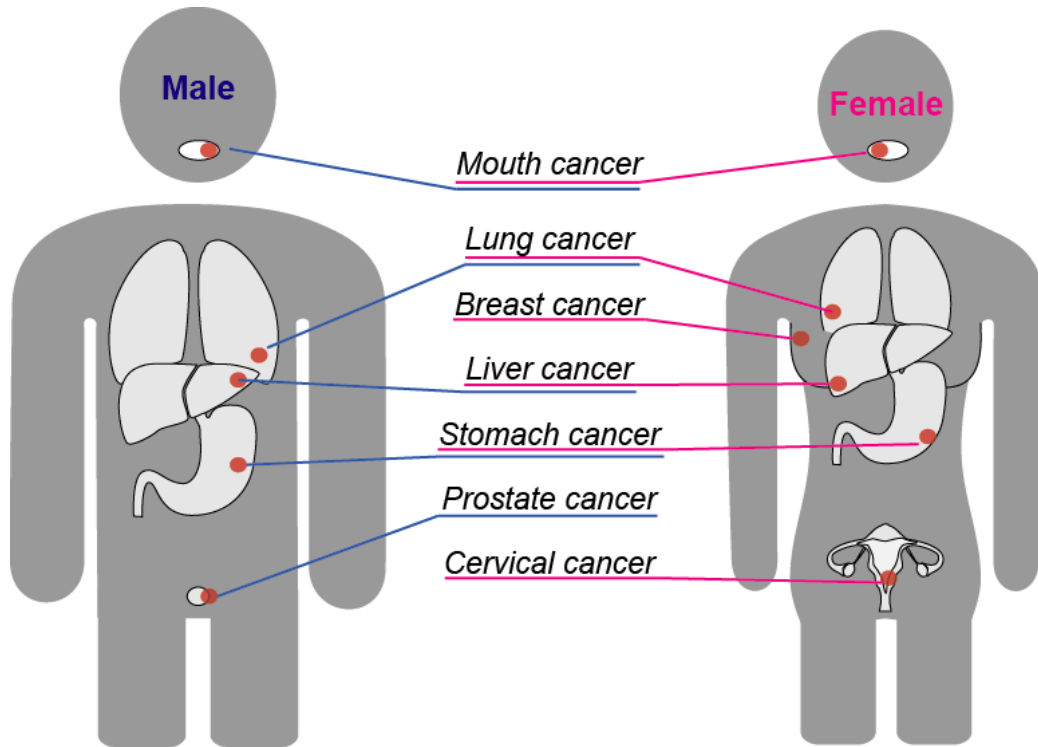


Worry/stress



Infection related

3.3 What are the common types of cancers?



Mouth cancer



Lung cancer






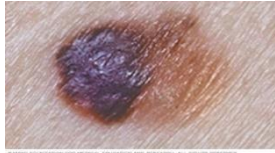


Breast cancer



Stomach cancer

3.4 What are the common signs and symptoms of cancer?

Signs / symptoms	Explanation	
<i>Pain (or painless) lumps or boils</i>	<ul style="list-style-type: none"> • Bone and testicular cancers are often painful from the beginning. • Some brain tumours cause chronic headaches which do not respond to treatment. • Some tumours and lumps are painless. 	
<i>Weight loss</i>	<ul style="list-style-type: none"> • Weight loss is the most common sign of cancer. • Most people with cancer lose their weight by the time they get diagnosed. 	
<i>Fatigue (feeling weak and tired)</i>	<ul style="list-style-type: none"> • It is a common symptom of Leukemia (cancer of the blood). • Colon or stomach cancer patients also experience blood loss. 	
<i>Fever</i>	<ul style="list-style-type: none"> • High fever is a sign that the body is fighting against something. 	
<i>Changes in skin</i>	<ul style="list-style-type: none"> • Cancers usually presents as new moles, bumps or marks on the body. • Change of colour (dark, yellow, red) with itchiness, sprouting of more hair and unusual rash may be signs of liver, ovarian or kidney cancer. 	
<i>Sores that don't heal</i>	<ul style="list-style-type: none"> • Bleeding skin spots which do not easily go away are also signs of skin cancer. • You are at higher risk of oral (mouth) cancer if you smoke or chew tobacco, drink a lot of alcohol or chew betel nut. 	

✧ *Many other diseases also show similar symptoms as cancer. The diagnosis of cancer should be done by an experienced doctor.*

3.5 What can you do when someone in the community may have cancer?

- Refer the patient to the nearest Health Centre



If you identify signs and symptoms of cancers in people in the community, you should advise them to consult a nurse or doctor in the local health centre.

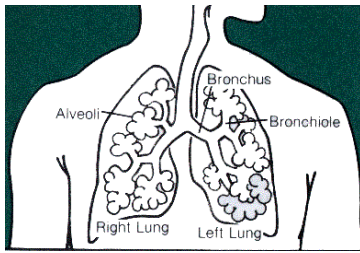
- Early detection and diagnosis are important.



The earlier cancer cases are detected, the higher the possibility of curing them.

4 Chronic Respiratory Diseases (CRDs)

CRDs are long term diseases of the **airways and other structures of the lung**.



4.1 What are the common CRDs?

Asthma

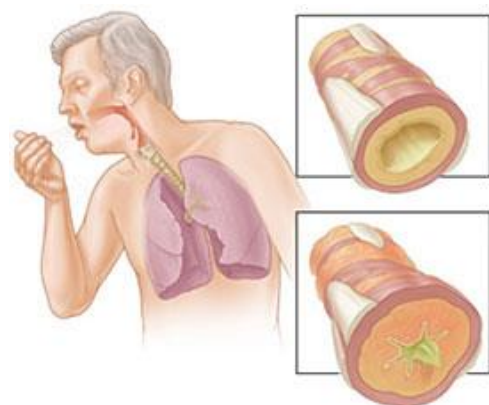
- Chronic (long-term) lung disease that inflames and narrows the airways.
- It causes recurring attacks of shortness of breath (short wind) chest tiredness, cough and wheezing (a whistling sound when you breathe).








Chronic Obstructive Pulmonary Diseases

(COPD, chronic bronchitis or emphysema)

- This is a group of lung conditions that make it difficult to take in and empty air from the lungs due to narrowing of the airways.
- Chronic Bronchitis – means the airways are inflamed and narrowed.
- Emphysema – affects the alveolus (air sacs).

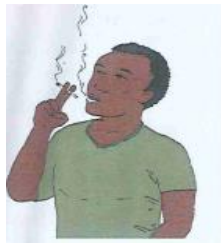


4.2 What are the common signs and symptoms of CRDs?

Signs / symptoms	Explanation	
Chronic cough	<ul style="list-style-type: none"> • Cough for a month or longer 	
Shortness of breath	<ul style="list-style-type: none"> • Shortness of breath (short wind) or difficulty breathing 	
Chronic mucus production	<ul style="list-style-type: none"> • Mucus, also called sputum production lasted a month or longer 	
Wheezing	<ul style="list-style-type: none"> • Wheezing or noisy breathing 	
Chronic chest pain	<ul style="list-style-type: none"> • Unexplained chest pain that lasts for a month or more, especially if it gets worse when breathing or coughing 	

4.3 What are the common causes of CRDs?

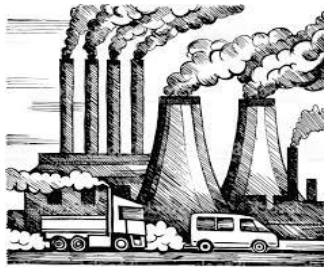
Causes and risk factors of CRDs are as follows:



Tobacco smoking



Occupational chemicals in the workplace



Air pollution (indoor and outdoor)



Dust inhaled (asbestos etc.)

4.4 How can you prevent CRDs?

It is important to prevent the risk factors or causes of chronic respiratory diseases to reduce disability and premature deaths. Some preventive measures are as follows:

- Stop smoking and stay away from second-hand smoke.
- Avoid indoor and outdoor air pollution.
- Avoid exposure to people who have the flu or other viral infections.
- Exercise regularly – do a 30 minutes brisk walk daily.
- Eat a healthy, balanced diet.
- Maintain a healthy weight.
- See your doctor for an annual medical physical check-up.

5 Diabetes

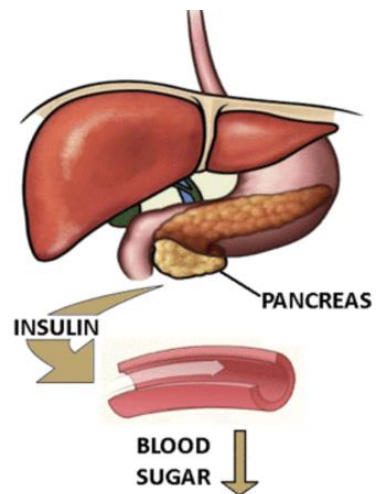


5.1 What is Diabetes?




- Diabetes (Diabetes mellitus) is a chronic disease caused by:
 - **low insulin** production
 - **poor use of insulin**
- Such a deficiency results in increased **concentrations of blood sugar (glucose)** which can damage many body systems particularly the blood vessels and nerves.

Insulin

Insulin is a **hormone**, which allows the body to use sugar (glucose) for energy. Insulin is produced in the pancreas located behind the stomach.



5.2 What are the different types of diabetes?

Type of diabetes	Explanation
Type I Diabetes	<ul style="list-style-type: none"> This is caused when the pancreas fails to produce insulin. This type develops most frequently in children and adolescents, but is being increasingly noted later in life. 
Type II Diabetes	<ul style="list-style-type: none"> This occurs when the body is unable to use insulin properly. This type is the most common globally and in the Solomon Islands. It is more frequent in adults but now increasing in adolescents. 
Gestational Diabetes	<ul style="list-style-type: none"> It occurs during pregnancy when the mother has higher than normal blood glucose levels. Diabetes in pregnancy may give rise to several adverse outcomes: <ul style="list-style-type: none"> - congenital malformations - increased birth weight - an elevated risk of perinatal mortality It is best to see a doctor or nurse when pregnant to check if you have gestational diabetes. 

5.3 What are the common signs and symptoms of diabetes?

3 major symptoms:



Frequent urination



Increased thirst and fluid intake



Increased appetite

General symptoms:



Weight loss

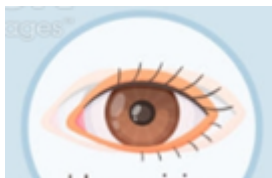


Fatigue



Feeling drowsy after eating

Other symptoms:



Blurred vision



Itching sensation in the genital area



Wounds which won't heal



Tingling sensation in hands and feet

5.4 What are the common causes of diabetes?

Diabetes causes and risk factors are as follows:



Ageing



Abnormal blood sugar during pregnancy



Overweight / Obesity



Physical inactivity



Unhealthy eating habits



Genetic factors



Family history



Environmental Causes



Persistent organic pollutants (POPs)



Smoking

5.5 Management of Diabetes

- Diabetes is commonly referred to as a “lifestyle disease”.
- Control blood sugar levels and prevent complications by changing lifestyle.



Reduce overweight and obese weight



Stop smoking



Exercise regularly



Eat more fruits and vegetables



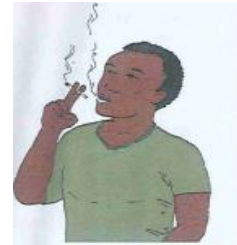
Take medication or insulin




6. The Main Causes of NCDs

There are 5 principal causes of NCDs. It is important to understand them, so that you can take preventive actions, change the course of your life and enjoy healthy life.

6.1 Tobacco use (smoking)

- Tobacco smoke consists of **Nicotine**, **Carbon Monoxide** and **Tar** and many other dangerous chemicals and poisons.



Dangerous chemicals	Explanation
<p data-bbox="252 750 375 784">Nicotine</p> 	<ul style="list-style-type: none">• Nicotine is highly addictive. This is the reason why it is very hard to quit smoking.• Sufficient amount intake can lead to vomiting and depression of the central nervous system.
<p data-bbox="252 1093 507 1126">Carbon monoxide</p> 	<ul style="list-style-type: none">• Carbon monoxide is a toxic gas with no smell or taste.• Enough amount of carbon monoxide can kill the human quickly.• It decreases muscle and heart function.• It causes fatigue, weakness and dizziness.• It is especially toxic for babies still in the womb, infants and individuals with a heart or lung disease.
<p data-bbox="252 1516 304 1550">Tar</p> 	<ul style="list-style-type: none">• Tar contains a lot of cancer-causing agents.• When inhaled usually about 70% of the tar is left in the lungs.• People exposed to second hand smoke also share the risks.

6.2 Physical inactivity

- Physical inactivity causes the decrease of muscle mass. It makes it difficult to do daily living activities.
- People with insufficient physical activity are likely to gain weight and accumulate cholesterol which blocks blood flow.
- Physical activity strengthens muscles, bones and body defence (immunity) system.



6.3 Harmful use of alcohol

- Alcohol is broken down mostly in the liver after drinking.
- Alcohol comes in many forms: beer, wine, spirits, kwaso, kaleve and home brew.
- Continuous heavy alcohol drinking may cause fatty liver, hepatitis and liver cancer (cirrhosis) and other cancers.
- Heavy alcohol drinking can also cause serious problems to other body organs.



6.4 Betel nut chewing

- Betel nut chewing causes oral cancer.
- Regular betel nut chewing can also cause gum irritation and tooth loss.
- Chewing betel nut with lime during pregnancy is very **harmful for babies** and can cause lifelong health problems.



6.5 Unhealthy diet

- A Healthy diet low in fat, sugar and salt, but high in fruits and vegetables prevents overweight, obesity and NCDs.



7. Nutrition and Prevention of NCDs



7.1 What is Nutrition?

- Nutrition is about eating a healthy and balanced diet to maintain normal growth, health and wellbeing.
- Good food and drink provide the energy and nutrients that you need.
- Good nutrition is also essential for reducing the risk of developing NCDs such as diabetes, stroke, heart disease and cancer.
- Good nutrition from pregnancy to 5 years old reduces the risk of NCDs in later life.

7.2 What is Healthy Diet?

- Healthy diet is eating a **variety** of foods from the **three food groups** and in **right amount** each day.



Variety:

- Food variety is important because each food has unique strength.
- Different foods provide a wide range of essential nutrients such as carbohydrates, proteins, fats, minerals, vitamins, fibre and water, as well as phytochemicals and antioxidants that are all beneficial to health.
- Eating too much food from one food group can lead to imbalanced diet.

The 3 food groups:

- Food can be categorised into 3 groups, depending on types of nutrients mainly contained.

Energy foods group	
<ul style="list-style-type: none"> ✓ Rich in carbohydrates and fat ✓ Providing energy 	
Type	Name fo common food
Starchy vegetables	Sweet potatoes, potatoes/Kumara, taro, yam, banana (for cooking), bread fruit, corn
Grain	Rice, wheat flour, corn flour
Fat and oil	Oil, butter, coconut oil, avodade, palm oil
Other	Sugar, honey



Body building foods group	
<ul style="list-style-type: none"> ✓ Rich in protein ✓ Providing nutrients for growth and repair of body 	
Type	Name fo common food
Animal foods	Meat, fish, sea foods, milk, milk product, egg, turtle, local wild birds
Legume	Long beans, snake bean, wing bean, white bean
Other	Peanut, ngali nut, cut nut, alite nut

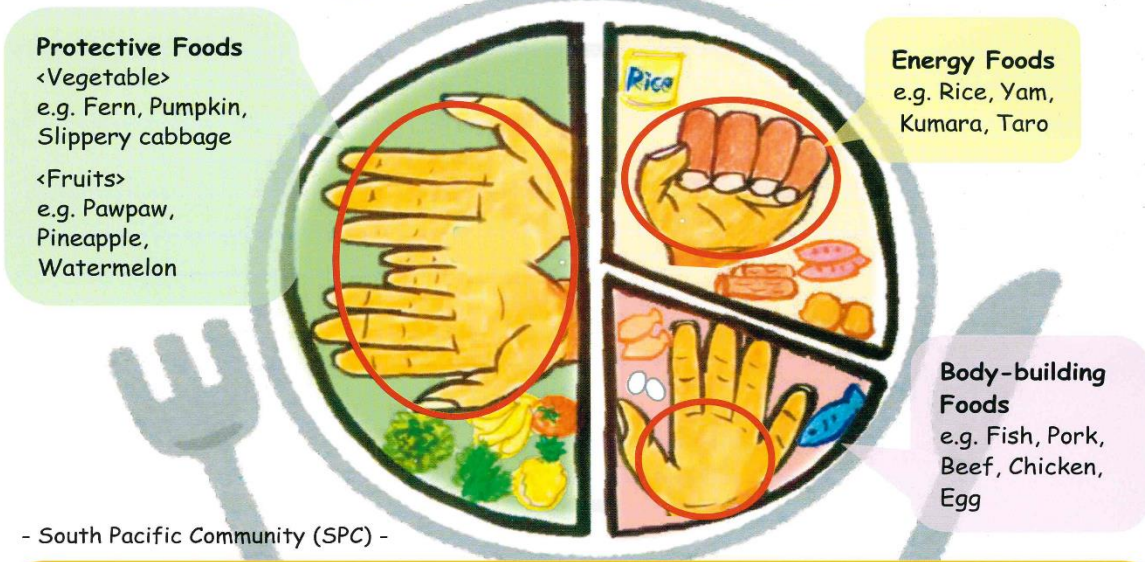


Protective foods group	
<ul style="list-style-type: none"> ✓ Vitamin and mineral rich foods ✓ Providing nutrients that protect the body from sickness 	
Type	Name of common food
Vegetables /Vitamin rich	Slippery cabbage, fern, pumpkin leaf, taro leaf, sweet leaf, sandpaper/amau leaf, kumara leaf, tomato, choysum, pumpkin fruit
Vegetables /General	Onion, eggplant, shallot, chinese cabbage
Fruits /Vitamin rich	Lemon, pawpaw, mandarin orange, soursop
Fruits / General	Watermelon, banana, fivecorner/starfruit, rumbutan, local apple, guava



Right Amount:

Helti Plate



Fruits and vegetables are rich sources of vitamins, minerals and dietary fiber, which are essential in reducing your risk of developing diabetes, some cancers, heart attack and stroke. So it's recommended to eat many protective foods. And then, you should eat proper energy foods about six fists a day or two fists at breakfast, two fists at lunch and two fists at dinner.

Produced by Masae Ito

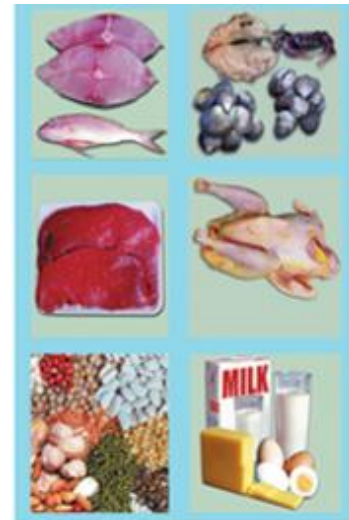
1) Eating too much of energy foods;

Cause high glucose in your body and leads to obesity, diabetes and CVDs. But eat at least 6 portions each day.



2) Eating too much of body building foods;

Cause gout, overweight, obesity and risky for those with Kidney and liver diseases. But eat at least 1 -2 portions each day.



3) Eating too much vegetables & fruits;

Does not cause any harmful health risk. But eat 5 or more portions per day.



4) Eating of one type of food for a long period of time;

Is not healthy because not all food provides all needed nutrient. Eating variety is important for good health and body immunity.

7.3 Choose healthy local foods:

- Local foods are best for health.
- Remember what your ancestors used to eat and how they lived.



7.4 Choose, prepare and eat foods with less salt, fat and sugar

- Many people consume too many foods and drinks with high levels of salt, fat and sugar, which are linked to increased risks of all the lifestyle diseases.
- Everyone should aim to reduce consumption of food with high levels of salt, fat and sugar.

1) LESS Salt or Sodium intake

- Salt contains **sodium**, so a diet high in salt would also be high in sodium.
- Salt attracts and holds water; therefore a high salt diet can lead to too much water in the body. Now, it will require extra work for the heart to circulate the blood around the body, resulting in **high blood pressure**, which is associated with very high risks of stroke and heart diseases.
- Beware of hidden salt found in canned foods, processed meat, snacks, etc.
- **Reduce salt intake to less than one teaspoon of salt a day.**



2) LESS Fat intake

- High fat diet caused high energy intake and then leads to unhealthy weight gain.
- Eating a lot of saturated fat and trans fatty acids can raise the level of **bad cholesterol** and increase the risk of heart diseases.



- **Saturated fats** are found in animal meat, dairy products, matured coconut cream /oil and palm oil products such as processed foods.
- **Trans-fatty acids** are obtained from fried foods and baked products such as cakes, pies, biscuits, crackers, cookies, etc.
- Bad cholesterol can build up in the blood and attach itself to the walls of the arteries and causing **blockage in the blood vessels**.
- Blocked arteries may lead to heart attacks, stroke, blood circulation problems and colon cancers.
- Fats from plant-based foods are healthier options, e.g. nuts, seeds.
- Choose and prepare with less added fats.

3) LESS Sugar intake

- Eating high sugar meals rapidly **increases blood sugar** levels and **insulin secretion**, resulting in **more body fat**.
- The **amount and types of sugar** you eat and how the food is prepared are some of the factors that influence blood sugar levels.
- Choose and prepare with less added sugar.
- Beware of hidden sugars found in juice, ketchup, coffee mix, milk tea, etc.



Annex

Annex 1 Internal organs

Lungs
Bring oxygen into the body and remove carbon dioxide from the blood stream.

Liver
It filters toxins from the body, provides bile to aid digestion, stores vitamins and minerals and helps control blood sugar level.

Kidneys (behind intestines)
Remove wastes from the body through production of urine.

Large intestine
Organ to absorb water and salts from foods after the small intestine has absorbed most of the other nutrients.

Small intestine
The major organ for chemical food break down and nutrient absorption.

Ovaries (Female organ)
The female reproductive organ which produces eggs and hormones.

Heart
Muscular organ that pumps blood through the whole body to deliver oxygen and nourishment to muscles and organs.

Stomach
Plays a major role in food digestion.

Pancreas
It produces insulin which helps manage levels of sugar in the blood stream.

Spleen (behind stomach)
The spleen plays multiple supporting roles in the body. It acts as a filter for blood as part of the immune system.

Bladder
Organ which holds urine removed from the kidneys.

Prostate (Male organ)
It supplies substances that facilitate fertilisation and sperm transit and survival.

Annex 2 Pacific Guidelines for Healthy Living



Pacific
Community
Communauté
du Pacifique

Pacific guidelines for healthy living

1.



Eat a variety of foods from the three food groups in the appropriate amounts each day, and choose fresh local products:

- **ENERGY FOODS**
(yam, cassava, taro, sweet potato, breadfruit, rice and bread)
- **PROTECTIVE FOODS**
(leafy greens, tomato, cucumber, capsicum, papaya, ripe banana)
- **BODY BUILDING FOODS**
(fish, lean meat, eggs, dried beans, low-fat milk products)

2.



Eat vegetables and fruits everyday.

3.



Choose, prepare foods with less salt, fat and sugar.

4.



Prepare and store foods safely. Wash hands thoroughly with soap before and after handling food.

5.



Do at least 30 minutes of moderate-intensity activity (e.g. brisk walking) on five or more days each week.

6.



Drink plenty of safe and clean water each day.

7.



Don't smoke, chew betel nut or do drugs.

8.



Reduce consumption of alcohol, kava and home brew. If you drink, avoid heavy drinking.

9.



Feed babies with breast milk and nothing else for the first six months of life.

Start complementary feeds at about 6 months and continue breastfeeding until at least two years of age.

10.



Relaxing and being part of a community are good for your health.

Make sure to enjoy time with family and friends.

NOTE These guidelines are for healthy populations. People with medical conditions or concerns should seek the advice of a healthcare professional.

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Glossary of Terminology

Anaemia	Anaemia is a condition of lack of healthy red blood cells to carry adequate oxygen to the body's tissues. Having anaemia may make you feel tired and weak.
Antioxidant	Man-made or natural substances that may prevent or delay some types of cell damage .
Asbestos	Asbestos is a natural mineral fibre , used in building materials, friction products, packaging, etc. The fibres are fireproof, light and very thin (often invisible). They can be highly toxic and cause lung cancer .
Asthma	Common long-term inflammatory disease of the airways of the lungs .
Artery	The arteries are the blood vessels that deliver oxygen-rich blood from the heart to the tissues of the body.
Arteriosclerosis	Thickening, hardening and loss of elasticity of the walls of arteries . This process gradually restricts the blood flow to one's organs and tissues and can lead to severe health risks.
Atherosclerosis	Atherosclerosis refers to the build-up of fats, cholesterol and other substances in and on your artery walls (plaque) , which can restrict blood flow.
Atherosclerotic clot	A piece of clots or plaque that broke off from an atherosclerotic plaque enter the bloodstream.
Blurred vision	Unclear, unfocused vision .
Carbon monoxide	A poisonous gas that has no smell or taste, produced by burning gasoline, wood, propane, charcoal or other fuel.
Carbohydrate	Carbohydrates are the sugars, starches and fibres found in fruits, grains, vegetables and milk products. They're a source of energy for the body.
Cholesterol	Cholesterol is a waxy substance found in your blood. Your body needs cholesterol to build healthy cells, but high levels of cholesterol can increase your risk of heart disease . Cholesterol is made and broken down in the liver.
Congenital malformation	A physical defect present in a baby at birth that can involve many different parts of the body.

Congested nose	Congested nose or nasal congestion is the blockage of the nasal passages usually due to membranes lining the nose becoming swollen from inflamed blood vessels .
Dementia	Loss of cognitive functioning (thinking, remembering and reasoning) and behavioural abilities to such an extent that it interferes with a person's daily life and activities.
Fat	Fat is the greasy substance that forms some types of tissue in the body of humans and animals (some of which the body stores and uses for energy) and some plants.
Foetus	An unborn offspring , from the embryo stage (the end of the eighth week after conception, when the major structures have formed) until birth.
Gestational diabetes	High blood sugar that develops during pregnancy and usually disappears after giving birth.
Glucose	A type of sugar found in foods that the body uses for energy. As it travels through bloodstream to cells, it's called blood glucose or blood sugar .
Gout	Gout is a general term for a variety of conditions caused by a build-up of uric acid . This build-up usually affects feet . It feels swelling and pain in the joints of foot, particularly the big toe .
Immunity	Ability of an organism to resist a particular infection or toxin by the action of specific antibodies or sensitised white blood cells .
Insulin	A hormone made by the pancreas that allows your body to use sugar (glucose) from carbohydrates in the food that you eat for energy or to store glucose for future use.
Kidney	Kidneys are two bean-shaped organs, each about the size of a fist. They are located just below the rib cage. They are mainly responsible for filtering waste products, excess water and other impurities out of the blood .
Legume	Foods from the legume family include peanuts, cut nuts and ngali nuts. Legumes are excellent sources of protein , carbohydrates, essential micronutrients and fibre.
Minerals	Minerals are those elements on the earth and in foods that our bodies need to develop and function normally . Those essential for health include calcium, phosphorus, potassium, sodium, chloride, magnesium, iron, zinc, iodine, chromium, copper, fluoride, molybdenum, manganese and selenium.

Nicotine	An addictive substance that causes the urge to smoke .
Obesity	Abnormal or excessive fat accumulation that presents a risk to health.
Ovaries	The ovaries the primary female reproductive organs that produce the egg cells, called the ova or oocytes.
Pathogens	A bacterium, virus or other microorganism that can cause a disease.
Pancreas	The pancreas is an organ located in the abdomen. It plays an essential role in converting the food we eat into fuel for the body's cells.
Perinatal mortality	A perinatal death is a foetal death (stillbirth) or an early neonatal death .
Persistent organic pollutant	Toxic chemicals that adversely affect human health and the environment around the world. They can be transported by wind and water.
Plaque blockage	Blockage of the artery caused by accumulated fatty material (plaque) . This condition underlies coronary heart disease and other circulatory diseases.
Phytochemicals	Phytochemicals are a wide variety of non-nutritive chemical compounds found in plant foods, which may have protective health effects.
Protein	Proteins are essential nutrients for the human body. They are one of the building blocks of body tissue and can also serve as a fuel source .
Saturated fat	A type of fat comes mainly from animal sources of food, such as red meat, poultry and full-fat dairy products. Excessive intake of saturated fat raises blood cholesterol.
Stillbirth	When a baby is born dead after 24 completed weeks of pregnancy . It happens in around 1 in every 200 births.
Stroke	A stroke may be caused by a blocked artery (ischemic stroke), the leaking or bursting of a blood vessel (haemorrhagic stroke) in the brain .
Tar	Tar is a toxic substance made by the burning of tobacco products. Tar damages the smoker's lungs and mouth over time.
Trans Fatty acid	Trans-fatty acids are unsaturated fatty acids mostly created in an industrial process and found in cakes, biscuits, fried foods, milk tea and margarine. They raise your " bad " cholesterol and also lowers your "good" cholesterol.

Ulceration	An ulcer is a sore on the skin or a mucous membrane , accompanied by the disintegration of tissue.
Uterus	The uterus is the female reproductive organ that receives the fertilised egg and supports its development during pregnancy.



**Health Promoting Village Project
Japan International Cooperation Agency**