Heart disease in the Pacific

Coronary heart disease (CHD) is the first or second leading cause of death in most Pacific Island countries and territories. It is also a common cause of sickness and ill health. Rates are increasing in most countries in the region.

What is coronary heart disease?

- Coronary heart diseases (CHDs) are diseases that affect the heart and the heart’s blood vessels.
- Cardiovascular diseases (CVDs) are diseases that affect the heart and all the blood vessels in the body. CVD includes CHD and strokes (Strokes will not be discussed in this section because they are closely linked to high blood pressure. See information in 'High Blood Pressure' below.)

CHD occurs when the heart muscle does not get enough blood. This happens mostly when a clot of blood blocks a narrowed blood vessel (narrowing due to a fatty build-up on the inside surface of the vessel – atherosclerosis). This can cause a heart attack or an angina attack.

Symptoms of coronary heart disease

Until a heart attack or angina attack happens, many people will not notice any symptoms. Some may have chest pains or be short of breath during physical activity.

- A heart attack will include chest pain, often along with sweating, nausea and extreme tiredness.
- Severe heart attacks can lead to heart failure and death.

Angina

- Angina is a type of CHD.
- Often no clot is involved with angina attacks and they are less severe than a heart attack.
- Angina attacks cause chest pain.
- Activity, stress or a large meal often trigger attacks (because they create extra work for the heart).
- Angina attacks can be treated well with medication in most cases.
### Risk factors

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>Action to lower risk</th>
<th>Evidence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history (genetics)</td>
<td>None</td>
<td>Very good</td>
</tr>
<tr>
<td>Lack of physical activity</td>
<td>Be active every day. Perform activities such as walking, swimming, and gardening.</td>
<td>Very good</td>
</tr>
<tr>
<td>Smoking</td>
<td>Stop smoking.</td>
<td>Very good</td>
</tr>
<tr>
<td>Stress</td>
<td>Try to reduce stress.</td>
<td>Very good</td>
</tr>
<tr>
<td>Excess alcohol intake</td>
<td>Drink in moderation only – a maximum of two measures per day.</td>
<td>Very good</td>
</tr>
<tr>
<td>Lack of fruits and vegetables</td>
<td>Eat more fruit and vegetables.</td>
<td>Very good</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Take care of diabetes according to medical advice.</td>
<td>Good</td>
</tr>
<tr>
<td>Obesity</td>
<td>Maintain a healthy weight through healthy eating and physical activity.</td>
<td>Good</td>
</tr>
<tr>
<td>Age and gender (older men are at greatest risk)</td>
<td>None</td>
<td>Good</td>
</tr>
<tr>
<td>Ethnicity (certain ethnic groups, e.g. Pacific Islanders and native Americans, have increased risk)</td>
<td>None</td>
<td>Good</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>Follow advice to lower blood pressure: Eat a healthy diet and increase physical activity.</td>
<td>Good</td>
</tr>
<tr>
<td>High fat intake</td>
<td>Eat less fat and fewer fatty foods, and use less oil for cooking.</td>
<td>Good</td>
</tr>
<tr>
<td>High saturated-fat intake</td>
<td>Eat less fatty meat and butter.</td>
<td>Good</td>
</tr>
<tr>
<td>High trans-fatty acid intake</td>
<td>Eat fewer processed fatty foods and less margarine (which are high in trans fatty acid).</td>
<td>Moderate</td>
</tr>
<tr>
<td>High blood cholesterol level</td>
<td>Reduce fat intake, in particular animal fat. Increase activity levels.</td>
<td>Moderate</td>
</tr>
<tr>
<td>High cholesterol intake</td>
<td>Eat fewer cholesterol-rich foods e.g. eggs, liver</td>
<td>Poor</td>
</tr>
</tbody>
</table>

Note: Evidence refers to the amount of research and other studies that support this ‘theory.’

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**Blood Vessel with Fat Build-up**

![Blood Vessel with Fat Build-up Image]

**Normal Blood Vessel**

![Normal Blood Vessel Image]
Overall recommendations for preventing and controlling heart disease

- Be physically active.
- Eat less fat and fewer fatty foods. Replace some of your animal fats (e.g. meat and butter) with fish and vegetable oils.
- Eat plenty of fruits and vegetables.
- Do not smoke.
- Drink sensibly.
- Try to minimise stress.
- Eat less salt and fewer salty foods.
- Avoid becoming overweight. If overweight, try to lose weight.

What are the risk factors?

- The more risk factors you have, the higher is your risk of heart disease.
- Reducing the number of risk factors that a person has will lower their overall risk of developing CHD.

Hypertension – High Blood Pressure

Blood pressure

Blood in the blood vessels (arteries and veins) is under pressure (blood pressure), because of the heart beating.

- **Systolic** (higher number) pressure – is the pressure when the heart is beating.
- **Diastolic pressure** – is the pressure between heartbeats.

Blood pressure is always expressed as systolic then diastolic, e.g. 122/76 (122 over 76).

Blood pressure measurement

A doctor or a health professional will use something called a ‘sphygmanometer’. A cuff is inflated on someone’s upper arm, to stop the blood flow. As the cuff is slowly released, the blood starts to flow back through the arm. The doctor listens using a stethoscope to an artery in the arm. The initial noise will be the systolic pressure. As the pressure in the cuff is further lowered, there is another sound (quieter) indicating diastolic pressure. The readings will be in terms of millimetres of mercury seen in the sphygmanometer (mm Hg).

Definitions of hypertension

When blood vessels are healthy, blood flows through them easily. When vessels become hard or blocked, the blood cannot flow as easily. The heart therefore has to work harder to move the same amount of blood. This is how high blood pressure develops.

Risks from hypertension

- Often the person feels well and healthy.
- For the person with hypertension, there are very high risks of stroke, coronary heart disease (CHD), heart failure and kidney disease.

<table>
<thead>
<tr>
<th>Blood pressure level</th>
<th>Systolic (mm Hg)</th>
<th>Diastolic (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Less than 130</td>
<td>Less than 85</td>
</tr>
<tr>
<td>Grade 1 hypertension (mild)</td>
<td>140–159</td>
<td>90–99</td>
</tr>
<tr>
<td>Grade 2 hypertension (moderate)</td>
<td>160–179</td>
<td>100–109</td>
</tr>
<tr>
<td>Grade 3 hypertension (severe)</td>
<td>More than 180</td>
<td>More than 110</td>
</tr>
</tbody>
</table>

(One high result is not enough to show a problem, another measurement should be taken at a different time, to confirm diagnosis.)
A stroke occurs when blood supply to the brain is reduced. It causes weakness or numbness on one side of the body, dizziness and unsteadiness. Effects can be permanent.

Causes of hypertension:
- Age – as we grow older, blood pressure naturally increases,*
- Genetics/hereditary factors,*
- Obesity and overweight,
- Too much salt/sodium,
- Drinking too much alcohol,
- Smoking and use of tobacco,
- Not enough activity/exercise,
- Stress,
- Diabetes (high blood sugar damages blood vessel walls),
- Pregnancy (many pregnant women develop high blood pressure).

To prevent or control hypertension
- Stop smoking – the most important issue.
- Lose weight if overweight.
- Drink alcohol with care – no more than two alcoholic drinks (measures) per day. Avoid binge drinking.
- Eat less salt and fewer salty foods.
- Eat a healthy balanced diet with plenty of variety. Include plenty of fruits and vegetables.
- Increase physical activity. Walking regularly is helpful.

Role of salt
- Salt is very important for many people with hypertension; they need to eat less.
- Only a few people who are hypertensive are not affected by salt.
See Factsheet No. 12 for more information on salt.

Eating less salt
- Avoid adding salt or soy sauce at the table and in cooking.
- Eat fewer salty foods such as: savoury snacks (potato chips), sauces (ketchup and meat gravies), soy sauce, bread, margarine, butter, cheese, ramen, canned meats (corned beef and spam).
- You will even find salt in things like biscuits and cookies, many canned/tinned foods, cakes, pastries, and many frozen foods.
- We become used to high salt levels in our food, and in time can also get used to eating less salt.
- Instead of using salt, try using herbs and spices, lemon juice, vinegar, garlic or fresh chillies for extra flavour.

(* cannot be controlled)