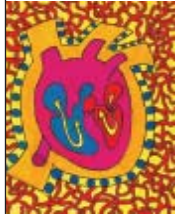


OVERHEADS

1. Introduction and Welcome
2. Aims and objectives
3. Overview of modules
4. Aboriginal people and cardiovascular disease
5. Aboriginal people and cardiovascular disease (continued)
6. Factors contributing to chronic health conditions in Aboriginal people
7. Functions of the cardiovascular system
8. Pathways of the blood vessels
9. Flow of the blood in the body
10. Location of the heart
11. Chambers of the heart
12. Blood flow around the heart
13. Great vessels of the heart
14. Blood supply to the heart
15. How does the heart beat happen?
16. What is cardiovascular disease?
17. Main cause of cardiovascular disease is atherosclerosis
18. What does atherosclerosis do?
19. Diagram showing atherosclerosis
20. Risk factors for cardiovascular disease
21. Coronary heart disease
22. Heart attack
23. Heart attack diagram
24. Signs and symptoms of heart attack
25. Angina
26. Signs and symptoms of angina
27. Heart failure
28. Symptoms of heart failure
29. Rheumatic fever
30. Blood pressure
31. What's so bad about high blood pressure?
32. Stroke
33. Risk factors for stroke

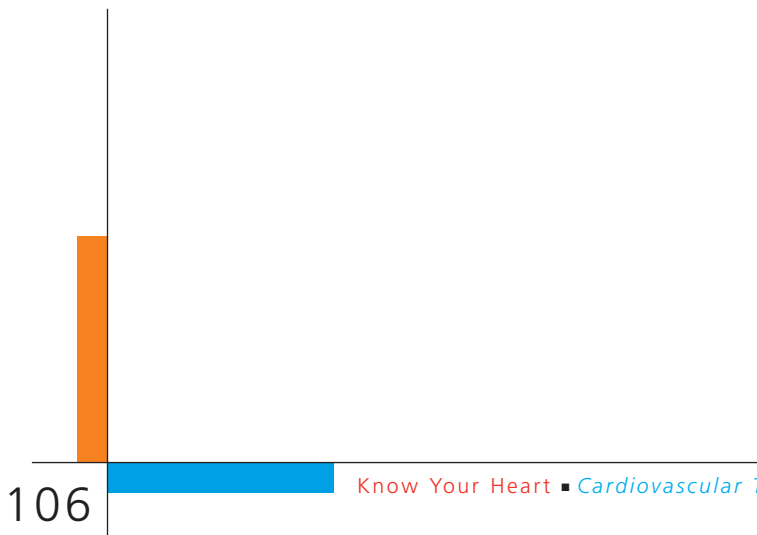
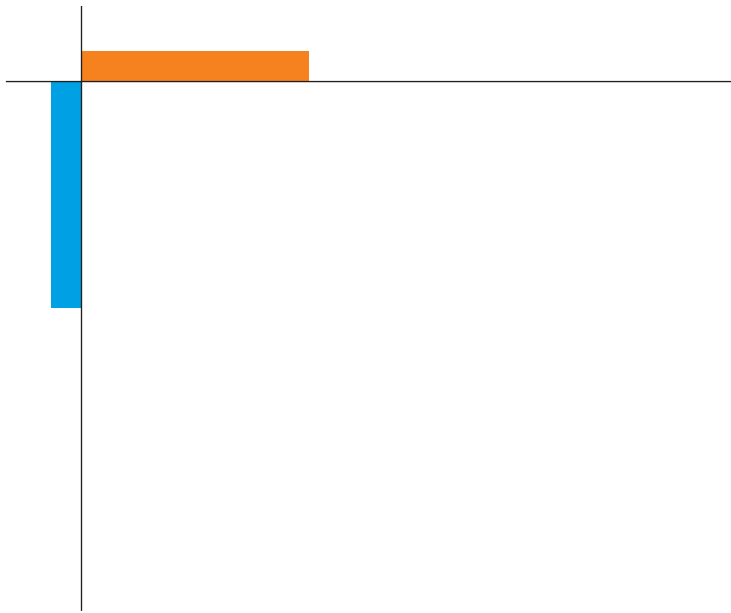


34. Peripheral vascular disease
35. Detection of cardiovascular disease
36. Diagrams of medical tests
37. Prevention of cardiovascular disease
38. Medications for heart disease
39. – 41. Table of medications for heart disease
42. Lifestyle changes
43. Coronary angioplasty
44. Coronary stenting
45. Coronary bypass
46. Cardiac arrest
47. Cardiac rehabilitation
48. Cardiac rehabilitation team
49. Alternate models of care

HANDOUTS

1. Aims and objectives of the workshop
2. Questions
3. Aboriginal view of health
4. Cardiovascular disease in the Aboriginal community
5. Factors contributing to chronic health conditions in Aboriginal people
6. Activity – Reflective practice
7. Blood flow to the heart and to the lungs then back into the heart
8. The cardiovascular system – how it works
9. Cardiac anatomy
10. Coronary blood flow or coronary arteries
11. Electrical conduction of the heart
12. The mechanical component of the heartbeat
13. Measuring the blood pressure
14. Types of cardiovascular disease
15. What is cardiovascular disease?
16. Risk factors for cardiovascular disease
17. Artherosclerosis risk factors
18. Types of cardiovascular disease
19. Prevention of cardiovascular disease
20. Activity – Role playing
21. Table of medications for cardiovascular disease
22. Coronary angioplasty
23. Coronary stenting
24. Coronary bypass
25. What is cardiac rehabilitation?
26. Phases of cardiac rehabilitation
27. Where to now?
28. References and resources





APPENDIX 1 – ADULT LEARNING PRINCIPLES

Training tips

- It is very important that everyone learns how to reduce his or her risk of getting heart disease.
- Education is very important. Educated health care professionals, patients and communities are the key to successful screening, detection and treatment of heart disease.
- Heart health education can take many forms such as individual counselling, individual education, having a yarn, group education, printed materials, videos and newsletters.

Here are some important practical suggestions for helping you pass on your knowledge, to your clients and communities.

Getting started

In order for you to start the process you need to have a basic understanding of how adults learn. Adult learning occurs best when certain principles are followed.

These principles are outlined below in this table.

Participants learn best when...	The role of the trainer is to...
They feel valued and respected for the experiences and perspectives they bring to the training situation	Elicit participants' experiences and perspectives
The learning experience is active and not passive	Actively engage participants in their learning experience
The learning experience actually fills their immediate needs	Identify participants' needs and tie training concepts into these identified needs
They accept responsibility for their own learning	Make sure that training content and skills are directly relevant to participants' experiences so that they will want to learn
Their learning is self-directed and meaningful to them	Involve participants in deciding on the content and skills that will be covered during the training
Their learning experience addresses ideas, feelings, and actions	Use multiple training methods that address knowledge, attitudes, and skills
New material is related to what participants already know	Use training methods that enable participants to establish this relationship and integration of new material
The learning environment is conducive to learning	Take measures to ensure that the physical and social environment (training space) is safe, comfortable, and enjoyable

Table continued overleaf



Participants learn best when...	The role of the trainer is to...
Learning is reinforced	Use training methods that allow participants to practice new skills and ensure prompt, reinforcing feedback
Learning is applied immediately	Provide opportunities for participants to apply the new information and skills they have learned
Learning occurs in small groups	Use training methods that encourage participants to explore feelings, attitudes, and skills with other learners
The trainer values their contributions as both a learner and a teacher and experiences with others	Encourage participants to share their expertise

Reference: Adapted from the Trainers Guide for Cancer Education, National Cancer Institute, U.S National Institutes of Health. Accessed on 31.05.05. Available at www.cancer.gov/clinicaltrials/resources/trainers-guide-cancer-education/page1#

Adult learners

Are:

Goal-oriented

- Upon enrolling in a heart health session, the clients usually know what goal they want to attain i.e. lose weight, exercise more, eat less, know about their heart. They appreciate a program that is organised and has clearly defined elements. Trainers must show participants how the session will help them attain their goals. This classification of goals and course objectives must be done early in the course. Ask, early what do you want to learn? What do you want to achieve?

Practical

- Adults focus on the aspects of a session most useful to them. Learners may not be interested in knowledge for its own sake. As do all learners, adults need to be shown respect.

Autonomous and self-directed

- They need to be free to direct themselves.
- Their teachers must actively involve adult participants in the learning process and serve as facilitators for them. Remember to make them comfortable and encourage them to ask questions.
- Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests (this is covered in the question group work at the outset of the training).
- You should allow the participants to assume responsibility for presentations and group leadership if they wish.
- Act as facilitators, guiding participants to their own knowledge rather than supplying them with facts. Finally, they must show participants how the facilitators will help them reach their goals (e.g. via a personal goals/ action plans sheet).

Adult learners have *accumulated a foundation* of life experiences and knowledge that may include work-related activities, family and community responsibilities, and previous education.

Trainers must acknowledge the wealth of experiences that adult participants bring to the sessions. These adults should be treated as equals in experience and knowledge and allowed to voice their opinions freely in class.

Trainers need to connect learning to this knowledge and experience base. To help them do so, they should draw out participants' experience and knowledge, which is relevant to the topic.



Motivating the adult learner

Another aspect of adult learning is motivation. At least six factors serve as sources of motivation for adult learning:

- **social relationships:** to make new friends, to meet a need for associations and friendships
- **external expectations:** to comply with instructions from someone else, to fulfil the expectations or recommendations of someone with formal authority.
- **social welfare:** to improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work
- **personal advancement:** to achieve higher status in a job, secure professional advancement, and stay abreast of competitors
- **escape/stimulation:** to relieve boredom, provide a break in the routine of home or work, and provide a contrast to other exacting details of life
- **cognitive interest:** to learn for the sake of learning, seek knowledge for its own sake, and to satisfy an inquiring mind

Barriers and motivation

Unlike children and teenagers, adults have many responsibilities that they must balance against the demands of learning. Because of these responsibilities, adults have barriers against participating in learning. Some of these barriers include:

- lack of time
- money
- shame factor
- confidence
- interest
- lack of information about opportunities to learn
- childcare
- transport.

The best way to motivate adult learners is simply to enhance their reasons for enrolling and decrease the barriers. Trainers must learn why their clients are enrolled (the motivators); they have to discover what is keeping them from learning. Then the instructors must plan their motivating strategies. A successful strategy includes showing adult learners the relationship between training and an expected outcome or goal.

Training tips



Trainers must remember that learning occurs within each individual as a continual process throughout life. People learn at different speeds, so it is natural for them to be anxious or nervous when faced with a learning situation. Positive reinforcement by the trainer can enhance learning, as can proper timing of the instruction. Learning results from stimulation of the senses. In some people, one sense is used more than others to learn or recall information. Instructors should present materials that stimulate as many senses (videos, worksheets, and activities) as possible in order to increase their chances of teaching success.

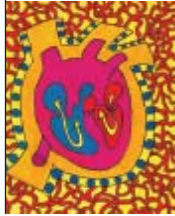
Remember to have fun.

Participants should remember what they have learnt from their lessons so they can apply the new information. The trainer's job is not finished until they have assisted the participants to remember the information. Participants must see a meaning or purpose for that information i.e. how this can make them healthier. They must also understand and be able to interpret and apply the information.

Retention of information by the participants is directly affected by their amount of practice during the learning. Instructors should emphasise retention and application. After the participants demonstrate correct (desired) performance, they should be urged to practice to maintain the desired performance.

Transfer of learning is the result of training – it is the ability to use the information taught in the course but in a new setting. **How can I teach this in my community?** As with reinforcement, there are two types of transfer – positive and negative.

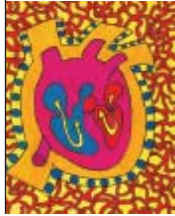
- Positive transference, like positive reinforcement, occurs when the participant's uses the behaviour taught in the course.
- Negative transference occurs when the participants do not do what they are told not to do. This results in a positive (desired) outcome.



APPENDIX 2 – GLOSSARY

Ace inhibitors	Medications used to reduce blood pressure.
Afterload	Before the left ventricle can push blood through the aortic valve out into the body's circulatory system the pressure in the ventricle must equal that on the other side of the aortic valve in the aorta. Afterload then, is the amount of tension the left ventricular muscle must build up before it can start to contract. The amount of tension is dependent on the aortic pressure.
Angina	Temporary chest pain or discomfort resulting from a reduced blood supply to the heart muscle. Angina occurs because part of the heart is temporarily unable to get enough blood and oxygen to meet its needs, due to an abnormally narrowed artery in the heart.
Atherosclerosis	A disease process, leading to build-up of fatty deposits, called plaque, on the inside walls of arteries causing artery walls to thicken and lose elasticity.
Blood pressure	The measurement of the pressure of the blood. Normal blood pressure is less than 120/80.
Bypass surgery	An operation that bypasses the narrowed areas in the coronary arteries to allow blood to get to the heart muscle. The bypass is constructed from either an artery from inside the chest (the internal mammary artery), from arteries in the forearm or from leg veins.
Cardiac hypertrophy	The heart is larger than normal due to an increased workload. This can be the result of diseases or disorders such as long-term heavy alcohol use, obesity, high blood pressure, and coronary artery disease.
Cardiac output	The amount of blood the heart pumps through the body's circulatory system in one minute.
Cardiac rehabilitation	Programs for people who have had a heart attack, heart surgery, coronary angioplasty or other heart or blood vessel disease to support their gradual increase in physical activity and provide education, information and support to both them and their families.
Catheter	The doctor will insert a small tube (catheter) into the blood vessel usually in the groin, passing it up to the heart blood vessels and then he/she will inject x-ray dye (contrast) that makes the vessels visible when the x-ray pictures are being taken. This will then allow the doctor to determine how well the blood moves through the heart's arteries and to see how much and where the blockages are.
Coronary angiogram	An x-ray of the heart taken to identify blockages in arteries and to show how well the heart is pumping where coronary heart disease is suspected.
Coronary angioplasty	Medical procedure designed to release a blockage in an artery.

Coronary bypass	An operation where the narrowed areas in the coronary arteries are bypassed to allow blood to get to the heart muscle. The bypass is constructed from either an artery from inside the chest or from arteries in the forearm or leg veins.
Coronary heart disease	Blockages in the arteries that supply the heart with blood cause reduced blood flow, making it difficult for the heart to function properly. Can lead to angina or heart attack.
Coronary thrombosis	Formation of a blood clot in an artery that supplies blood to part of the heart muscle.
Diabetes	Diabetes is a chronic disease characterised by high blood glucose levels resulting from the body not producing insulin or using it properly. Diabetes is often associated with high blood pressure and high blood fats (cholesterol and triglycerides), which greatly increases the risk of heart attack and stroke.
Echocardiogram	A painless medical procedure that uses ultrasound waves to diagnose heart disorders or abnormalities in the heart structure and measure the volume of blood being pumped from the heart.
Electrocardiogram (ECG)	A reading of the heart's electrical impulses taken from electrical leads placed on the chest and limbs. The reading is either printed on to a continuous strip of paper or shown on a small television monitor.
Enzymes	Complex protein substances within the body which are capable of speeding up certain biochemical processes in the heart muscle. Abnormal levels of these cardiac enzymes can indicate damage to the heart muscle i.e. signal a heart attack.
Heart attack	A heart attack is typically caused by a blood clot that suddenly blocks a narrowed artery, cutting the blood supply to the heart muscle. This can result in heart muscle damage.
Heart failure	Heart failure occurs when the heart muscle has become too weak to pump blood through the body as effectively as normal. This causes blood to 'dam up' behind the heart and fluid to collect in the lungs and other body tissues. Caused by a previous heart attack, long standing high blood pressure or a faulty heart valve.
Hormones	Hormones are chemical substances that the body releases into the bloodstream. Hormones control different functions in the body, including responses to stress or illness metabolism, growth and sexual development.
Hypertension	High blood pressure.
Indigenous	The two Indigenous populations of Australia are Aboriginal people and Torres Strait Islander people.
Mortality rate	Mortality rate (death rate) describes the number of deaths in a group of people, usually expressed as deaths per one thousand of the population.



Myocardial infarction	Commonly known as a heart attack.
Obesity	A person whose body mass index is greater than 30. Body mass index (BMI) is measured by the persons weight in kilograms divided by the square of his or her height in metres.
Peripheral vascular disease	Reduced blood flow, usually observed in the legs, caused by artherosclerosis.
Pericardium	The double layered membrane that surrounds the heart.
Primary prevention	The prevention of disease in healthy people. Treatments (such as BP medication or lifestyle changes) to prevent atherosclerosis and coronary artery disease events in people who do not have evidence of coronary artery or other cardiovascular disease.
Rheumatic heart disease	Damage to the heart muscle and valves caused by a virus.
Saturated fats	Fats contained in dairy products, meat, poultry and some vegetables and are solid at room temperature eg butter.
Secondary prevention	Treatment to prevent recurrent cardiovascular events in people who have documented cardiovascular disease.
Self- management	Involves the person with the chronic disease engaging in activities that protect and promote health, monitor and manage the symptoms and signs of illness, managing the impacts of illness on functioning, emotions and interpersonal relationships and adhering to treatment plans.
Self-determination	The recognition that Aboriginal people and communities should be actively involved in all decision-making that affects their lives and empowering them to do so.
Sinoatrial node	The heart's natural pacemaker. Sends out electrical signals that cause the atria to contract.
Stent	A plastic or metal tube permanently inserted into an artery to hold the artery open for blood flow.
Stress test	Exercise test on treadmill or stationary bike to measure the heart's response to exercise.
Stroke	Caused by an artery that supplies blood to a part of the brain suddenly becoming blocked or bursting. As a result, that part of the brain is damaged because it is deprived of its blood supply, which it requires to function.
Stroke volume	The amount of blood pushed into the aorta with each beat of the heart.