Unit 5 – Health Promotion

Identify the aim of health promotion materials, List the uses of health promotion. (Page 11)

Health promotion: The world Health Organization (WHO) **defines** health promotion as "the process of enabling people to increase control over, and to improve, their health. The goal of health promotion is to make people healthier and reduce the risk of developing diseases.



What does health promotion look like?
Health promotions look like adverts on television, posters, leaflets that encourage you to eat healthier or do more exercise, and screening on hospitals for things like diabetes or blood pressure.
Health promotion = Advertisement

Health education: uses medical sciences to teach people about health and well-being. **Health education = involve teaching (lecture)**

Approaches to health education:
There are **three** different approaches to health education. These approaches describe how information is given to people to educate them.

1. individual approach

The individual approach is one-to-one health education.
This may happen in a hospital as part of a clinic consultation with a doctor, nurse, health educator or other healthcare professional. It may also be in a non-medical setting, for example, at home with a community health professional.

2. group approach

The group approach is when a health educator or medical professional **teaches a group of people about a topic related to health.** This can happen in a medical setting, community setting, school, or workplace.

3. mass audience approach.

The mass audience approach to health education **uses the media to reach large population groups.** Health education may be presented through television, radio, newspapers, social media, and other online sources. It aims to educate a lot of people to improve their health.

HSC.1.2.01.002 Describe the principles of health promotion. . (Page 18– 20)

The pillar of health promotion:

The pillars of health promotion are designed by the **WHO** (world health organization)
Normally, a health promotion campaign or intervention will belong to one of the **three** pillars.



1. Good governance	2. Healthy cities	3. Health literacy
Health promotion interventions that require laws and policies to be created. Eg. Excise tax on sugar sweetened beverages - This was introduced by the government in UAE on 1/12/2019. All sugary drinks have increased in price by 50%.	Health promotion from the healthy cities pillar is all about creating spaces in towns and cities that allow people to have healthier lifestyle. It also includes organizing events that encourage healthy behavior Eg. fun runs and marathons.	Healthy literacy is about increasing people's knowledge about health. Health literacy means more than being able to read leaflets, make doctor's appointments, understand food labels, or follow instructions from a doctor. Health education is linked with health literacy.

HSC.1.2.01.008 Identify contemporary health problems (globally and locally.(Page 32– 34)

What is contemporary health problem?

Contemporary: modern, current, and ongoing at the present time.

Contemporary health problem are the health problems that people have in the present (Eg. COVID)

Global contemporary health problems:

Every year, the **World Health Organization (WHO)**, create a list of contemporary health problems that are affecting people's health globally. Some of those problems are:

1. Poverty
2. Climate change
3. Non-communicable diseases
4. Nutrition and physical activity
5. Mental health

In the past, people didn't know a lot about mental health and its importance. Advances in education and researched have helped create awareness regarding the importance of mental well-being as well as diagnosing and treating mental health disorders. Mental health disorder can have a long-term negative impact on people's overall health and quality of life. Mental health disorders have become a leading cause of illness and disability amongst young people.

Contemporary health problems in UAE:

Remember: In the UAE contemporary health problems refer to the current and ongoing health problems that are affecting people who live in the UAE.

In the UAE contemporary health problems are monitored by the Ministry of Health and Prevention. Government plans are created to improve health, quality of life and life expectancy in the UAE.

Some of the contemporary health problems in UAE, are:

1. Non-communicable diseases
   - According to the World Health Organization (WHO), non-communicable diseases, such as heart diseases, stroke, kidney disease, cancer and diabetes. It is the biggest causes of deaths in the UAE.
   - As some of these problems are preventable, the UAE government is focusing on prevention through health education and promotion. In the next lesson you will learn more about the different programs that the UAE has launched to deal with this contemporary health problem.

2. Road accidents and injuries
   - Road safety is currently a top priority for the UAE government.
   - Health education and promotion interventions are targeting people from 25 to 34 years old. **WHY?** Road accidents and injuries are the biggest cause of death within this age group.

3. Mental health and well-being
   - In 2016, the UAE government chose a minister of happiness and wellbeing, whose job is to monitor the UAE plans, programs, and policies to achieve a happier society.
   - Some of the initiatives that have been made are; establishing offices for happiness and wellbeing around the country and transforming customer service centers into customer happiness center. These centers do surveys and reports to measure happiness in all community parts.

HSC.1.2.01.006 Recall existing health promotion interventions in the United Arab Emirates. (Page 42)

Health promotion in UAE

1. **Keep on beating.**

The Keep on Beating campaign aims to make positive lifestyle changes and to identify risk factors related to cardiovascular disease including smoking, malnutrition, inactivity, and stress.

The campaign has two goals:

- To raise awareness of cardiovascular disease and the risk factors associated with it.
- To help people recognize when they might be at risk of suffering from unrecognized, untreated cardiovascular disease.

2. **Hospital campaigns**

Many hospitals throughout the country do their own health promotion campaigns.

Cleveland Clinic Abu Dhabi launched a health promotion campaign called "**Men**tion It".
Aim: aimed specifically at **men** in the UAE
Goal: encourage more men to address their health issues, whether mild or serious, with their doctor.



HSC.1.2.01.005 Create a health promotion programme/intervention plan for the local community. (Page 44)

What do you need in order to plan a health promotion campaign?

Two very important things that need to be done in order to plan a health promotion campaign are:

1. A needs assessment
2. Target setting

A needs Assessment	Target setting
A needs assessment will tell you what areas of health need to be addressed, and which group of people need to be targeted at that time. (What is missing and where to improve)	Developing a plan that can be used to guide people towards reaching a goal.

Unit 6 – Introduction to health

Identify fruits and vegetables. (Page 63)

The food groups:

Fruits and vegetables:

- Fruit and vegetables are grouped together because they give the body vitamins, minerals and fiber.
- The World Health Organization recommends that people should have at least **five servings** of fruit and vegetables every day.
- Fruit and vegetables are low in calories and contain water.
- They can make you feel fuller for longer and this reduces the chance of overeating.

DID YOU KNOW:
Different colored fruit and vegetables, especially orange, red and yellow fruit, contain carotenes. These can help with maintaining a healthy immune system.
DID YOU KNOW:
Research was carried out in the UAE looking at fruit and vegetable intake of students in grades 10-12. The research found that only **21% of females** and **33% of males** met their daily recommended intake of fruit and vegetables.

HSC.4.1.01.003 Describe the function of macronutrients and micronutrients. (Page 68)

Nutrients:
Nutrients are components in food. Without nutrients, you would not survive. All the nutrients that your body needs should come from the food and drinks you consume every day. Your body needs nutrients to:

- Give you energy.
- Help you to stay healthy and fight infection.
- Help your brain to function properly.
- Help your body with growth, development, and repair.

Nutrients are divided into 2 categories: **macronutrients** and **micronutrients**.

Macronutrients	**Micronutrients**
• Macronutrients give the body energy in the form of calories. • Needed in large amounts, and they are needed for survival. • The three macronutrients are **carbohydrates**, **protein** and **fat**. • Some foods have more of one macronutrient and less of others.	• Micronutrients are nutrients which the body needs in small amounts. • Micronutrients are **vitamins** and **minerals** found in food and drinks.

HSC.4.1.01.008 Analyse the relationship between nutrition and immunity. (Page 74)

Nutrition and immunity for teenagers and adults

The following micronutrients are also very important for immune function in different ways.

Vitamin B6	• Helps the body to make antibodies which are needed to fight against disease. • Found in fish (such as tuna), poultry, nuts and seeds (such as cashews and sunflower seeds), dates, avocado and bananas.
Vitamin C	• Necessary for the growth, development and repair or all body tissues. • Found in citrus fruits (such as oranges), tomatoes, peppers, strawberries, and green leafy vegetables (such as broccoli and spinach).

HSC.4.1.01.004 Define calories and their role in the human body. (Page 78-79)

What are calories?

Calories = Energy

Calories: the number of calories in your food is a measurement of the amount of energy in that food. Your body uses calories (energy) from food for walking, thinking, breathing and other important functions.

Women need to eat approximately **2000** calories per day, **Men** need to eat approximately **2500** calories per day to maintain their weight and to do everyday tasks.

However, the exact daily calorie requirements can change depending on the following:

- Age
- Gender
- Physical activity level

Your body needs calories to survive and do everyday tasks. However, eating too many calories can lead to weight gain.

Some foods, like apples, contain a low number of calories (one apple is around 50 calories). Other foods, like doughnuts, contain a higher number of calories (one doughnut is around 200 calories). This is because each food has different levels of macronutrients in them, which make up the total number of calories. You can find out how many calories are in most food by looking at the nutrition facts label on the package.

How many calories are in one gram of each macronutrient	
Protein	**4** calories per gram (4 Kcal/ g)
Carbohydrate	**4** calories per gram (4 Kcal/ g)
Fat	**9** calories per gram (9 Kcal/ g)

To find out how many calories are from a certain macronutrient:

- Find the number of grams of that macronutrient.
- Multiply by the number of calories per gram.

To find out how many calories are from a certain macronutrient		
Macronutrient (grams)	×	Calories per gram

Example:
If a serving of crisps has 8 grams of fat, how many calories of fat in this product.

$Calories = macronutrient\ (gram) \times Calories\ per\ gram$
$Calories = 8 \times 9$
$Calories = 72\ calories\ of\ fat$

HSC.4.1.01.005 Analyse the food-based dietary guidelines for the United Arab Emirates and other countries around the world. (Page 90)

Dietary guidelines:
Each country has its own food-based dietary guidelines. In most countries, their dietary guidelines communicate similar messages. Many countries use models to visualize them. Dietary guidelines. In the UAE, the model which is used is shaped like the **Burj Khalifa.**



- As you can see each food group is represented by a color.
- The colors which take up the most space on the model are the food groups which you need to eat the most.
- There is also a section for water. While it is important to make sure you eat enough foods from the different food groups, it is also very important to make sure you stay hydrated.

HSC.4.1.01.007 Demonstrate how to use nutrition information on food labels. (Page 92 – 94)

Understanding food labels

It is important to understand food labels as it is often hard to know what is in packaged foods. If you can understand the information on the food label, you can compare the information with other foods and make a healthier choice.

A lot of information can be found on the food label. It can tell you:

- the amount of food that is in a serving.
- where the food was made/the country of origin.
- the list of ingredients.
- the number of calories.



Packaged foods have a part on the label called '**nutrition facts**' or '**nutrition information**'. This gives you information about how many calories there are and a breakdown of each of the nutrients in the food.

Nutrition Facts

Follow the steps to reading nutrition facts:

Step 1: Find the number of servings.

- Try to find out how many servings are in the pack. Most labels tell you this information.
- If there are two servings per pack and you eat the whole pack, you will be eating double the nutrients per serving.
- The pack might state that one serving is 50g. You then must look for the total weight of the pack. If the pack contains 250g, there would be 5 servings per pack.

Step 2: How many calories?

You will then look for how many calories are in the pack or per serving. Most packs will show the calories per serving or per 100g. You may have to calculate this.

Step 3: Check the nutrients.

You can then look for the amount of nutrients in the food. Look at the breakdown of the nutrients you want to **limit** your intake of (saturated fat, sodium/salt, sugar, and cholesterol). Aim for foods with lower amounts of these nutrients.

Step 4: Look for what you need.

look for the breakdown of nutrients that you need to **eat more** of. These will vary from person to person, depending on each individual's nutritional needs. In general, people should look at eating more fiber, protein, vitamins, minerals and unsaturated fats.

Unit 7 – Cardiopulmonary Resuscitation

HSC.3.3.01.001 Demonstrate knowledge of a basic health assessment. (Page 101 - 102)

The vital signs

Vital: necessary, essential for health. Vital signs measure the body's most basic functions. These signs will show the level at which a person's body is functioning.

Four vital signs which are often checked by medical professionals are:

1. Body temperature
2. Pulse rate
3. Respiration rate
4. Blood pressure

Vital signs are a good way to detect or check up on medical problems. They can be measured almost anywhere, in a hospital, at home, or at the site of a medical emergency.

Conducting a basic health assessment of the vital signs:

There are specific methods which are used to carry out health assessments of each of the vital functions. Assessing vital signs is a key part of first aid.

- Taking a series of measurements will provide information about how the sick or injured person's body is functioning.
- They can also show if a patient is getting better or worse when the measurements are taken over time.
- Therefore, it is important to record the values of vital signs by writing them down, especially if you are caring for a person at the scene of an emergency while waiting for emergency services or a healthcare professional to arrive.

Knowing the normal rates means that you know if the person who you are dealing with is at risk of further injury or death.

How to conduct basic health assessments of the vital signs

1. Body temperature

- A person's body temperature can be taken from many parts of the body including the mouth, ear canals, on the skin, or under the arm.
- Digital thermometers are most commonly used.
- For a healthy adult, the **normal** body temperature is between **36.5°C and 37.2°C.**
- The environment can influence a person's body temperature, especially if they are in a very cold or very hot place.

2. **Pulse rate**

- As the heart beats, forcing blood through the arteries, you can feel beats pressing on the arteries that are located close to the surface of the skin.
- For most people, it is easiest to take the pulse rate at the wrist, but you can also find a pulse on the side of the neck and on the inside of the elbow.
- To check a person's pulse, simply use the first and second fingertips. Press firmly but gently on the arteries until you feel a pulse and count the pulse for 60 seconds.
- A **normal pulse** for a healthy adult at rest is **60-100** beats per minute.
- A person's pulse rate can be influenced by medical conditions. It is important to take this into consideration when measuring pulse.



Further information:
Generally, a lower resting heart rate suggests that the heart is working more eficiently and the person has good cardiovascular itness. For example, an athletes resting heart rate may be closer to 40 beats per minute.

3. **Respiration Rate**

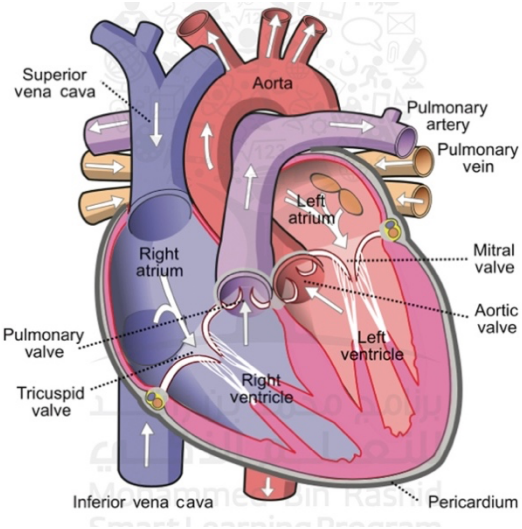
- This is the number of breaths a person takes per minute.
- Measuring the respiration rate is done when a person is at rest, by counting the number of breaths they take for one minute. Every time the chest rises is considered one breath.
- For a healthy adult, the **normal respiration** rate at rest is **12-20 breaths per minute.**

4. **Blood pressure**

- This is the force of blood pushing against artery walls.
- Two numbers are recorded when measuring blood pressure.
- The higher number is known as systolic pressure. This is the pressure inside the artery when the heart contracts and pumps blood around the body.
- The lower number is known as diastolic pressure. This is the pressure inside the artery when the heart is at rest and illing with blood.
- A **normal blood pressure** reading for a healthy adult is a systolic pressure of 120 and a diastolic pressure of 80. This is written as **120/80mm Hg** (millimetres of mercury).
- A person whose blood pressure reading is greater than 140/90mm Hg is known to have hypertension (high blood pressure).

HSC.3.3.01.002 List the reasons that could cause the heart to stop beating. (Page 104 - 109)

Anatomy of the heart:
cardiovascular system, which is made up of the heart and blood vessels. The heart is divided into four sections, the right atrium and left atrium; and right ventricle and left ventricle.

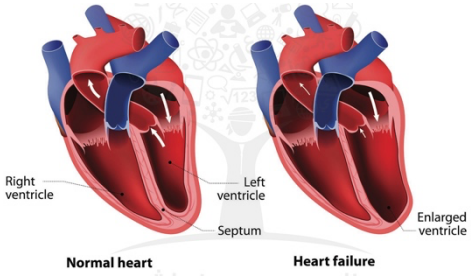


The left side of the heart receives oxygen-rich blood from the lungs and carries this oxygen around the body. The right side of the heart receives oxygen-poor blood after it has been delivered to the organs in the body. The oxygen-poor blood contains carbon dioxide which returns to the lungs where it gets exhaled.

Why might the heart to stop beating?

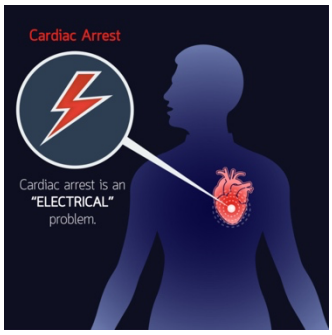
Heart failure

Heart failure happens when the heart muscles weaken, which causes the ventricles to enlarge (become bigger). Because of this, it is unable to pump enough blood around the body. Blood carries oxygen, nutrients, and energy to organs in the body. If there is not enough blood being taken to these organs, it is considered heart failure.



Cardiac arrest

Cardiac arrest is when the heart suddenly stops beating. This is usually due to problems with the electrical systems in the heart. This can quickly result in death if the correct steps are not taken after a person goes into cardiac arrest.



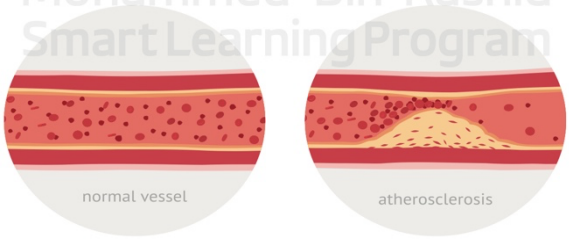
Causes of cardiac arrest

There are many possible causes of cardiac arrest. The most common cause of cardiac arrest is a heart attack.

DID YOU KNOW:
Cardiac arrest may be reversed if **cardiopulmonary resuscitation (CPR)** is performed, and an **automated external defibrillator (AED)** is used to shock the heart and bring back the heart rhythm within minutes.

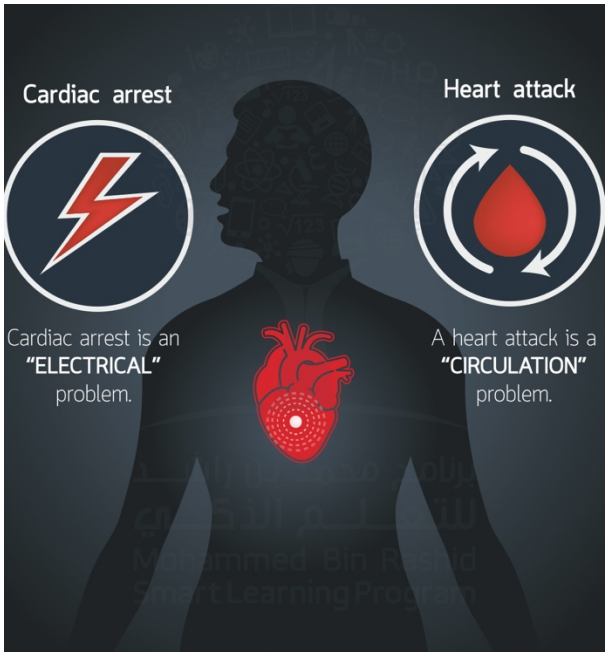
Heart attack

A heart attack occurs when the blood low that brings oxygen to the heart is severely reduced or stopped. This happens because coronary arteries that supply the heart with blood can slowly become thicker and harder from a build-up of fat, cholesterol, and other substances, called **plaque**. This slow process is known as atherosclerosis. If the plaque breaks open and a blood clot forms that blocks the blood low, a heart attack occurs.



Signs and symptoms of cardiac arrest and heart attack

Cardiac arrest	Heart attack
• Unresponsive/sudden loss of consciousness • No breathing • No pulse There may be other symptoms before a cardiac arrest happens. These include: • Chest pain • Shortness of breath • Weakness • Dizziness • Palpitations • Nausea	• Chest pain: a person may feel tightness in the center of the chest. • Chest pain can spread to other areas, such as the arms, jaw, neck, back and stomach. • Shortness of breath • Coughing • Wheezing • Nausea • Feeling light-headed or dizzy • Sweating • Weakness • Palpitations (noticeable heartbeats)



HSC.3.3.01.008 Demonstrate the initial steps to take at the scene of an emergency. (Page 112)

Initial steps to follow at the scene of an emergency.

If you see an adult who may have gone into cardiac arrest, take the following steps to assess the emergency and get help:

1. Make sure the scene is safe.
2. Check for a response.
3. Shout for help
4. Call 998 and get an AED.
5. Check for normal breathing.

Step 1: Make sure the scene is safe.

Do this before anything else. Do not put yourself in danger by helping someone else. Look for possible hazards that could cause you harm. You cannot help if you also become hurt. Examples of possible hazards include:

- A busy road
- Areas where electricity lines are down.
- A room with poisonous fumes
- An unstable building

Continue to check for changes that might happen which could make the area unsafe for either you, the casualty, or even both of you. There may be hazards which you have missed as you move around, or dangerous events that have not happened yet, for example, aftershocks can happen because of natural disasters.

Step 5: Check for normal breathing

If the person is unresponsive, check for normal breathing. Look for movement of the chest area for at least 5 seconds, but no more than 10 seconds. If the person is breathing, their chest will rise and fall. If they are **not breathing**, or if they are **gasping**, they will **need CPR**.

If:	The casualty is unresponsive but breathing normally	**then:**	1. CPR is not needed. 2. Put the casualty in the recovery position. 3. Stay with the casualty until medical care arrives
	The casualty is unresponsive and not breathing normally		1. CPR is needed. 2. Make sure the person is laying on a firm, flat surface. 3. Start giving CPR

What to do if you are not sure:

If you think someone needs CPR but you are not sure, **give them CPR**. You may save that person's life. High-quality CPR is not likely to cause harm if the person is not in cardiac arrest.

HSC.3.3.01.005 Demonstrate the steps of one-rescuer adult CPR, including using an automated external defibrillator (AED). (Page 120 – 123)

Giving breaths without a pocket mask

When breaths are given to the casualty without a pocket mask, a barrier device is needed. However, if there isn't a barrier device available, only give the breaths if the casualty is a family member or a close friend following these steps:



1. While holding the airway open, pinch the nose closed with your thumb and first finger.
2. Take a normal breath and cover the person's mouth with your mouth.
3. Give two breaths by blowing into their mouth for approximately one second for each breath. Watch for the chest to rise as you give each breath.
4. Make sure you do not take more than ten seconds while giving the two breaths. Compressions should not be stopped for any longer than ten seconds.

Put both steps together:

Follow the steps for compressions. After thirty compressions give two breaths. Make sure you do not stop compressions for more than ten seconds.

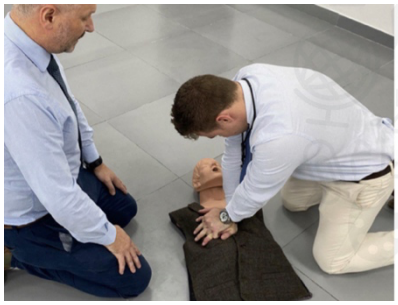
You should continue CPR until a medical professional arrives to take over, or the casualty starts breathing on their own again.

Remember: when providing CPR, give sets of **thirty compressions** and **two breaths**.

Two rescuer compressions

- Giving someone chest compressions can be hard work and tiring on your own.
- As you get tired, your compressions will become less effective.
- If there is someone else available to help you who is also trained in CPR, take turns in giving compressions.

Change the person who is doing compressions **every two minutes**. Make sure you switch as quickly as possible, as there should not be any pauses between compressions.





Automated external defibrillator (AED)

An automated external defibrillator (AED: is a portable, electronic device which delivers an electric shock through the chest to the heart.

- CPR combined with using an AED is the best chance of saving the life of someone who has had a cardiac arrest. If there is an AED available, it should be used when giving CPR.
- AEDs are completely safe and are very easy to use. Once you turn it on, it will give you instructions of what you need to do. The machine analyses if the person needs a shock and will automatically give one if needed.

Using an AED:

1. **Turn on the AED.**

To do this, you will need to either press the 'on' button or lift the lid. When you do this, you will hear instructions which will tell you everything you need to do.

2. **Attach the pads.**

The AED may have both adult and child pads. Make sure you use the adult pads on anyone older than 8 years old. Peel the back off the pads and attach them to the person's bare chest.



3. **Clear the casualty.**

The AED will analyze the heart rhythm. If a shock is required, it will tell you. Make sure everyone stays away from the person and nobody touches them at this time.

4. **Resume CPR**

After administering a shock, immediately resume CPR by giving compressions. The AED will continue to give you instructions. Continue to give CPR and use the AED until a medical professional arrives, or the casualty becomes responsive.



Special situations

If:	the casualty is lying in water,	**then:**	quickly move them to a dry area.
	the casualty is lying in a small puddle برکه,		you can still use the AED as the person does not need to be totally dry.
	the casualty has water or sweat on their chest,		quickly wipe the chest dry before attaching the pads.
	the casualty has an implanted defibrillator or pacemaker,		make sure you do not put the AED pad directly on the implanted device.
	the casualty has a medicine patch where the pad needs to be placed,		with gloves on, remove the patch, wipe the area clean and attach the pads as normal.