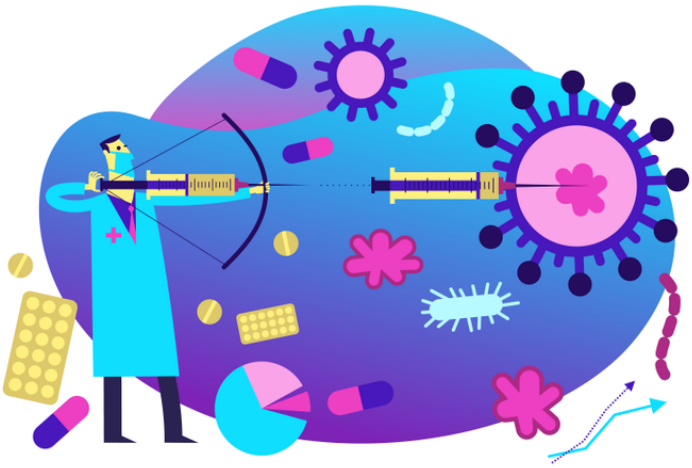
Health science

Study guide - unit 5 - Disease prevention

What is a disease or illness?

A disease or an illness is a medical condition that stops a persons body from working properly. There are many reasons why people might develop a disease.

Genetics environmental factors, or a persons lifestyle can all be reasons why they might develop a disease or illness.



The causes of disease can be split into two categories.

1

Diseases caused by bacteria, viruses and parasites which enter a persons body and makes them sick.

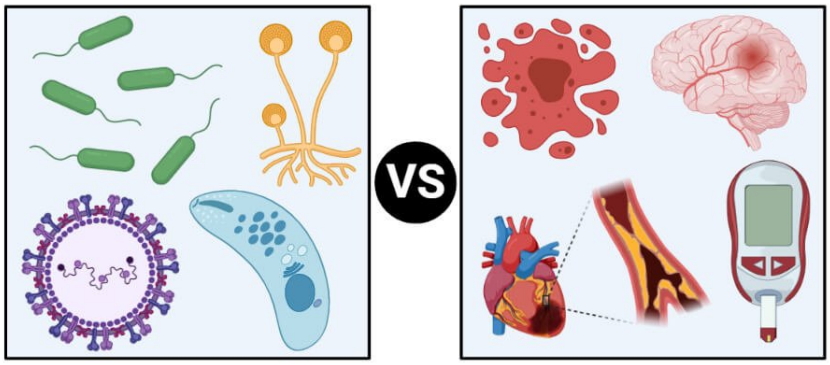
2

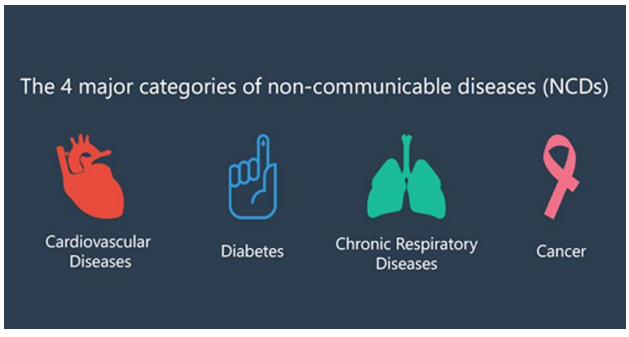
Diseases caused by a persons lifestyle choices, their environment or family history.

The best way that people can lower their risk of disease is by:

- Living a healthy lifestyle
- Practicing good personal hygiene
- Having regular medical check-ups

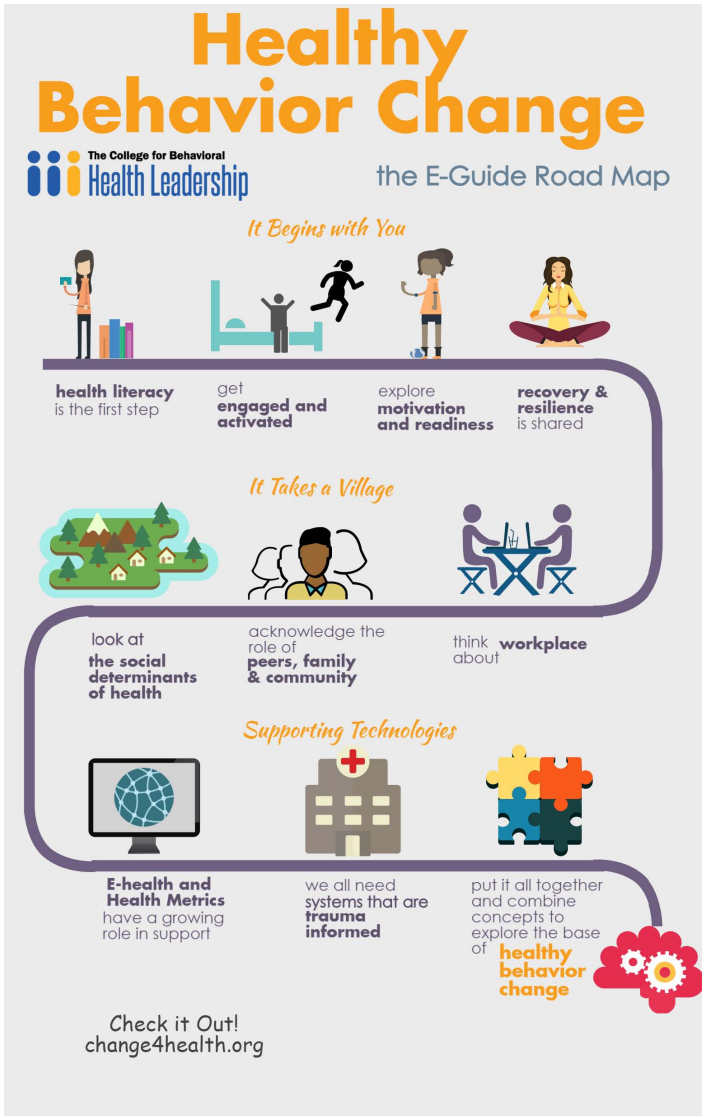
Communicable and Non-Communicable Diseases





Risk factors
Something that increases a persons chance of getting a disease is called a risk factor. The more risk factors for a disease you have, the greater your chance of getting the disease.

Personal health behaviours
These are lifestyle habits that can affect a persons health. They can be positive behaviours, which could be good for your health or negative behaviours which could be bad for your health.



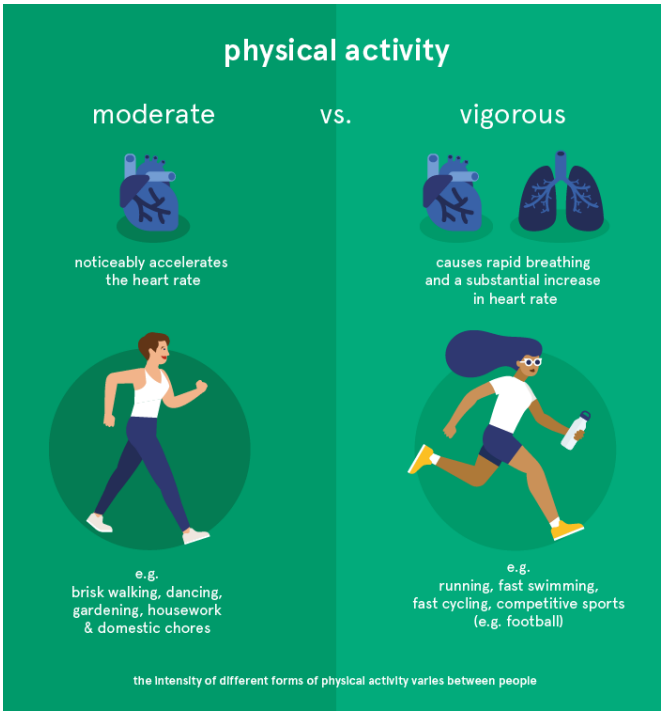
Positive health behaviours include:

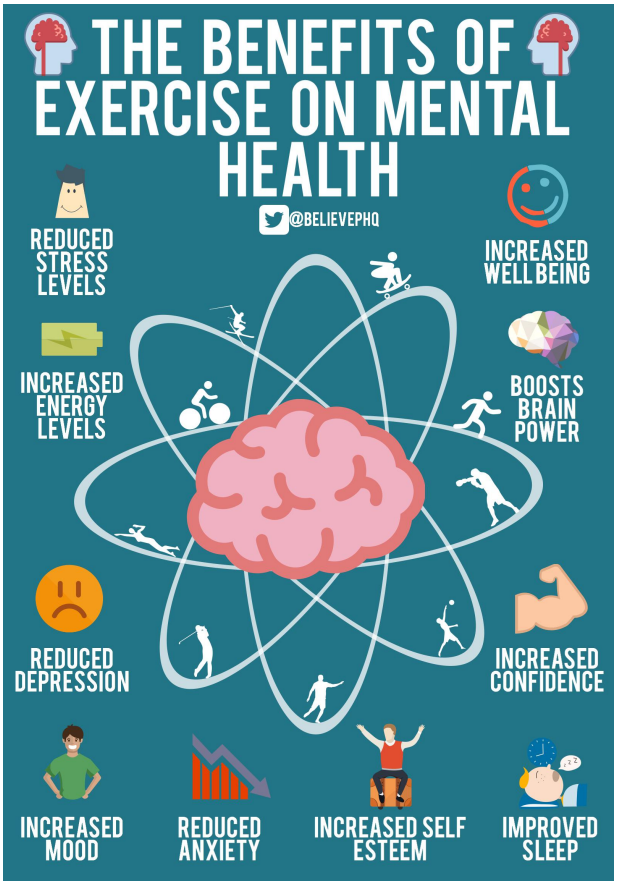
- Having a healthy diet and drinking enough water
- Getting enough sleep
- Having good personal hygiene
- Being physically active
- Getting regular medical check-ups

Good personal hygiene is an effective way to protect you from communicable diseases. It is important for:

- Killing bad bacteria
- Keeping the body clean & healthy
- Stopping the spread of illness and infection

Doing regular physical activity is very good for your health and well-being. It can benefit your physical, mental, social and emotional health.





Exercise reduces stress and improves your mood. This is because exercise makes your body release endorphins which can make you feel happy and improve your mood.
It can also improve your social health, especially if you do team sports or exercise with a group.

Medical care for disease prevention

There are some medical procedures that can help to prevent different diseases before they happen.

Two of these are:

- **Immunisation** - when we are made immune or resistant to an infectious disease, usually by the injection of a vaccine.
- **Screening** - this involves testing people to see if the have any signs of a disease or illness.

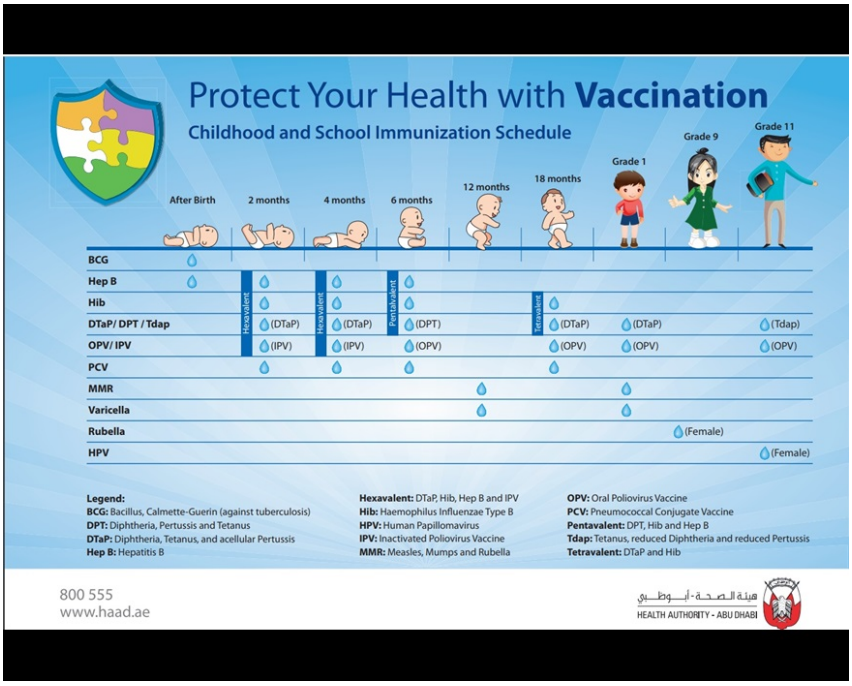
How do vaccines work?

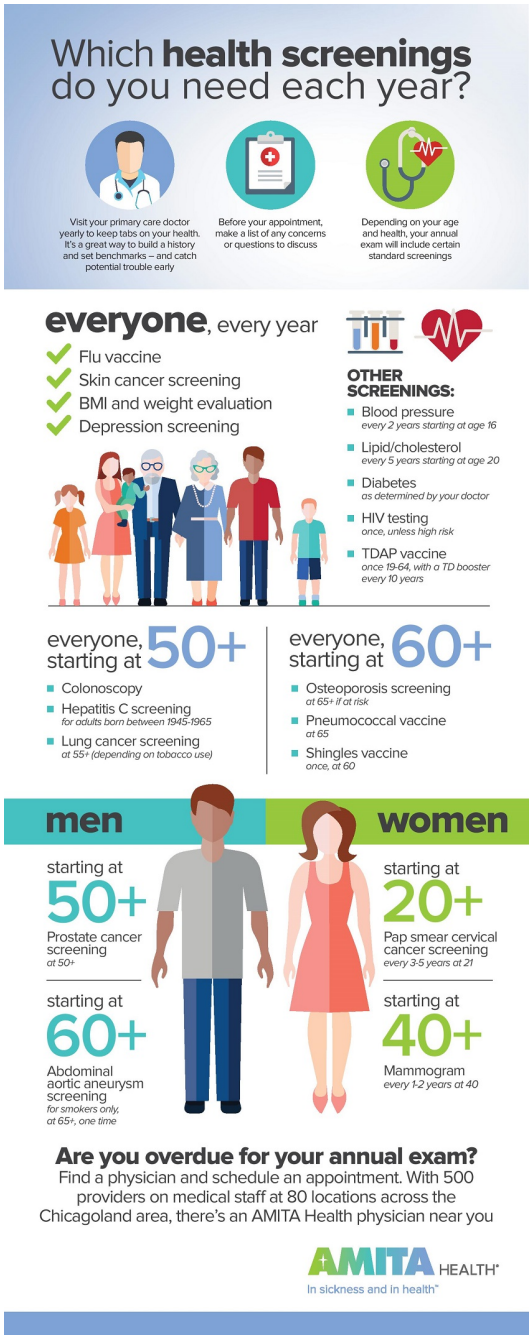
Most vaccines work by injecting a very small amount of the virus or bacteria that causes a certain disease into the body. It is a small enough amount so that it does not make you ill.

This makes the bodies immune system create antibodies to fight off the injected disease. Then, if the disease enters your body again in the future, your immune system knows what it is and already has the antibodies to fight it.

This is called immunity.

Screenings are medical tests that doctors use to check for diseases and health conditions in people before there are any signs and symptoms. Most often, screening is done on healthy people.





What do screening results mean?

Negative = you are at low risk of having the condition you were screened for. However, it doesn't mean you will never develop the condition.

Positive = you might have the condition you were screened for. It will usually require further testing (diagnostic tests) to confirm the results.

Infection control for disease prevention

An infection occurs when germs enter the body and multiply. Certain diseases are very infectious, this means they can spread easily from one person to another.

Comparison between screening and diagnostic tests

Screening tests	Diagnostic tests
Done to those who are apparently healthy or asymptomatic	Done to those with suggestive signs or symptoms
Applied to a group of individuals	Applied to a single person
Results are based on one criterion	Results are based on the evaluation of a number of symptoms, signs and investigations
Results are not conclusive	Results are conclusive and final
Less accurate	More accurate
Less expensive	More expensive
Not a basis for treatment	Basis for treatment

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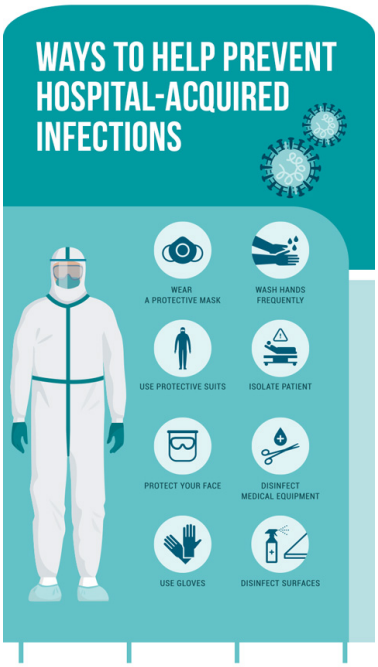

Three things are needed for an infection to spread:

- **A source**: this is where the germs are found and can include surfaces in the home or public places and on the skin.
- **A person**: with a way for germs to enter their body
- **Transmission**: the way germs are moved to a person

Antibiotic resistance

Antibiotics are a medication designed to kill bacteria and prevent infections from spreading. If over time antibiotics are overused, they are no longer as effective in killing bacteria. **This is called antibiotic resistance.** This can increase the chance of infection spreading from person to person.

Protect yourself against Covid-19
Choose to vaccinate