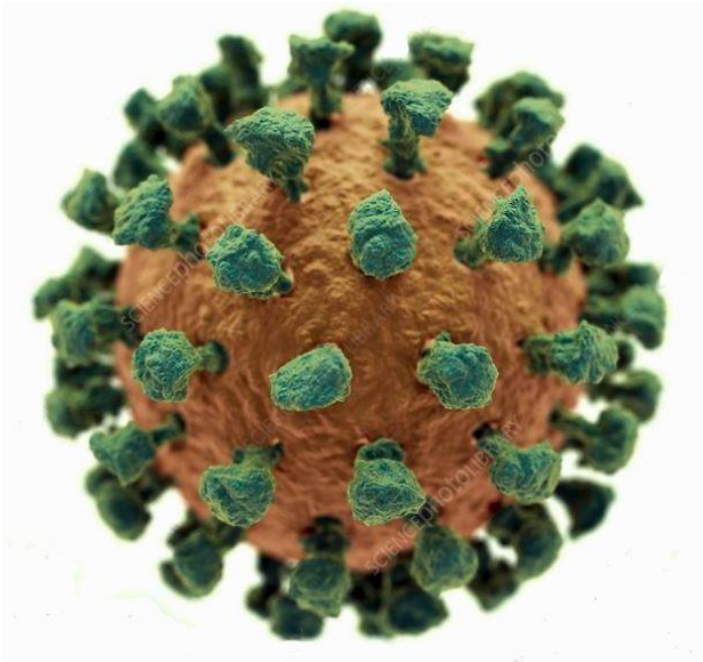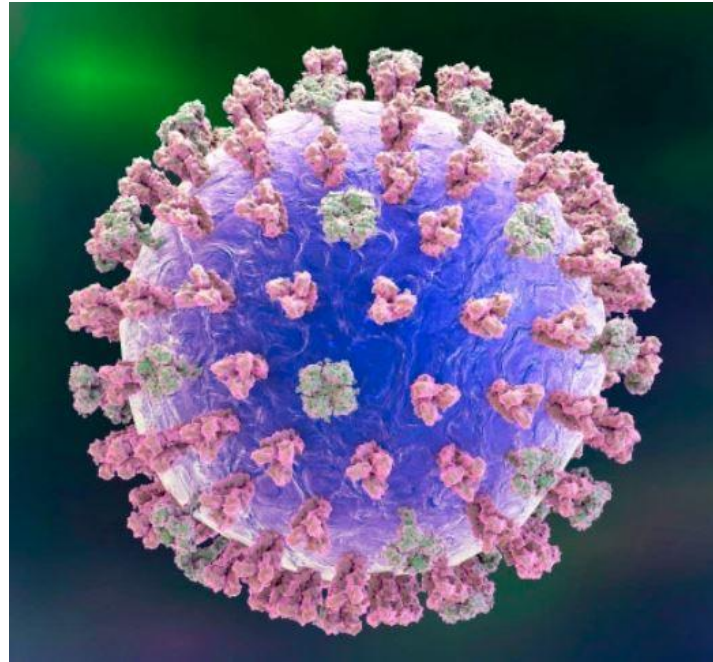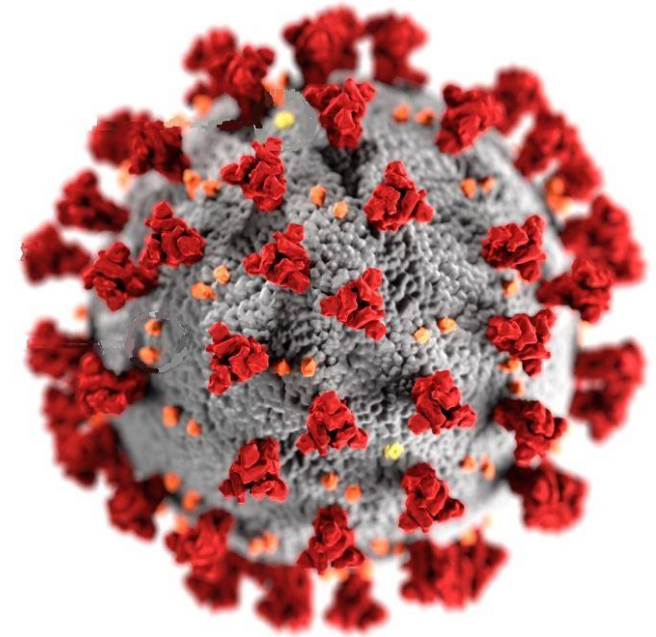# Coronaviruses

Common cold

Aussie Flu

CoVID-19

Bacteria & Viruses

Bacteria:

- living single-celled microorganisms, visible under microscope

- all shapes: rods, chains, clusters, spirals

- found in all environments, extreme hot and cold, in animal's intestines - essential for digesting food, breaking down organic matter etc.

- mostly not harmful, exceptions e.g. tuberculosis, urinary tract infections, whooping cough, staphylococcus infections - sepsis

- treated with antibiotics although some becoming resistant

Bacteria & Viruses

Viruses:
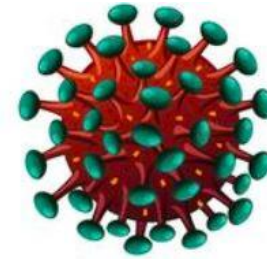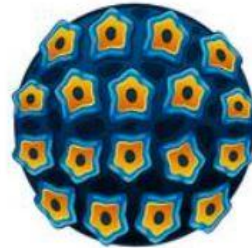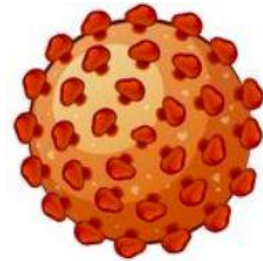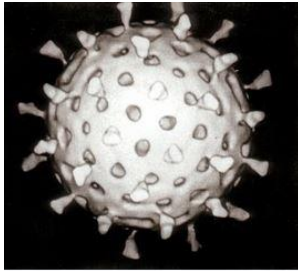
- non-living particles, visible only using an electron microscope
- basic shape: protein envelope with spikes round a single strand of RNA (primitive form of DNA) that contains the genetic code of the virus
- require living hosts to multiply
- spikes attach to host cell, virus then invades the cell making the host produce more virus that infects more cells
- viral diseases include AIDS, influenza, common cold, chicken pox
- cannot be treated conventionally but can be controlled by vaccination

Coronaviruses

Coronaviruses (CoV) are a very large family of viruses that are found in all animals. Seven are known to cause upper-respiratory tract illnesses in humans, ranging from mild to severe.

Four cause mild to moderate illness (benign): e.g. common cold, flu

Three cause more serious disease (virulent);

- Middle East Respiratory Syndrome (MERS-CoV)

- Severe Acute Respiratory Syndrome (SARS-CoV)

- Coronavirus CoVID-19 'the new kid on the block'

Coronaviruses are zoonotic, meaning they are transmitted between animals and people

Common Cold

The common cold is a viral infection of your nose and throat (upper respiratory tract). There are more than 200 types of virus causing colds

- rhinovirus, the most common responsible for at least 50% of colds

- coronavirus

- respiratory syncytial virus

- influenza and parainfluenza.

- treatment: keep warm, drink fluids, rest, humid environment. Some remedies will ease symptoms but won't cure it

Influenza

There are three main types of the influenza virus

- A and B
  - cause the large seasonal outbreaks
  - flu vaccine can help protect against contracting the virus
  - type A is also found in animals: e.g. ducks, pigs, chickens, horses
  - type B found only in humans
  - Aussie flu – type A strain H3N2, more severe in young children and the elderly. Australia had a big outbreak in 2017, spreading to the UK in 2018
- C
  - usually causes milder respiratory symptoms than A and B
  - there is no vaccine or immunisation
  - found in humans and pigs

Coronavirus

There have been several coronavirus epidemics that have spread worldwide

- Severe acute respiratory syndrome-related coronavirus (SARSr-CoV)

- Middle East respiratory syndrome-related coronavirus (MERS-CoV)

- Australian or Hong Kong flu

- CoVID-19

SARSr-CoV

Severe acute respiratory syndrome-related coronavirus

- epidemic of 2002 – 2004 originated in China

- probably came from bats or civet cats

- affects humans, bats & some mammals

- no reported cases since 2015

This virus was identified by the World Health Organisation in 2016 as a likely cause of future epidemics

A need for urgent research and development of diagnostic tests, vaccines and medicines was identified.

MERS-CoV

Middle East respiratory syndrome-related coronavirus

- originated in the Middle East in 2012

- infects humans, bats and camels

- came from bats, passed to camels and humans

- currently found in dromedary camels

From 2012 to 2015 cases were reported in over 21 countries world-wide, mainly in Saudi Arabia, Jordan, Qatar, Egypt, the United Arab Emirates, Kuwait, Turkey, Oman and Algeria.

CoVID-19

Coronavirus disease CoVID-19

New strain discovered in 2019 that has not been previously identified in humans.

- variant of the SARS virus

- originated in China in December 2019 from a 'jungle meat' market

- probably came from bats

- symptoms appearing 2-14 days after exposure include fever, cough and shortness of breath

- can result in pneumonia

Transmission

Spreads mostly by person-to-person contact

- coughing, sneezing, laughing, singing, talking or simply breathing
- within about 6 feet if viral droplets reach the mouth, nose or eye.
- from a viral droplet on a surface, then touching the face, mouth, nose or eyes

As the virus gets into the body only through the mouth, nose or eyes, transmission can be slowed by:

- social distancing
- washing hands, using a hand sanitizer (at least 60% alcohol) frequently
- regularly disinfecting hard surfaces high-traffic areas, e.g. kitchen, toilets

Face masks will help limit the distance a sneeze or cough is spread. They will not stop you inhaling virus particles

Treatment

There is no treatment for viral infections.

Manage the symptoms e.g.:

- paracetamol NOT ASPIRIN (can make things worse) to reduce the fever
- rest, stay in a warm, humid environment

Severe cases may require hospitalization and support such as oxygen and mechanical ventilation.

Vaccination:

- limits the spread and severity of an illness but must be given before the virus takes hold
- currently there is only a trial vaccine for CoVID-19.

Viruses often mutate as with influenza. A vaccine prepared to one strain of the flu virus will have limited protection against a variant

Influenza

What are the symptoms of flu?

Flu symptoms come on very quickly and can include:

- a sudden fever – a temperature of 38C or above

- an aching body

- feeling tired or exhausted

- a dry cough

- a sore throat

- a headache

- difficulty sleeping

- loss of appetite

- diarrhoea or tummy pain

- nausea and being sick

The symptoms are similar for children, but they can also get pain in their ear and appear less active.

The flu vaccine reduces the risk of catching flu, as well as spreading it to others.

It's more effective to get the vaccine before the start of the flu season (December to March).

Source: NHS UK ■

Is it a Cold, Flu or CoVID-19?

SYMPTOMS	CORONAVIRUS	COLD	FLU
FEVER	COMMON	RARE	COMMON
FATIGUE	SOMETIMES	SOMETIMES	COMMON
COUGH	COMMON (DRY)	MILD	COMMON (DRY)
SNEEZING	NO	COMMON	NO
ACHES AND PAINS	SOMETIMES	COMMON	COMMON
RUNNY OR STUFFY NOSE	RARE	COMMON	SOMETIMES
SORE THROAT	SOMETIMES	COMMON	SOMETIMES
DIARRHEOA	RARE	NO	SOMETIMES FOR KIDS
HEADACHES	SOMETIMES	RARE	COMMON
SHORTNESS OF BREATH	SOMETIMES	NO	NO

Management

How to lower and delay the coronavirus pandemic peak
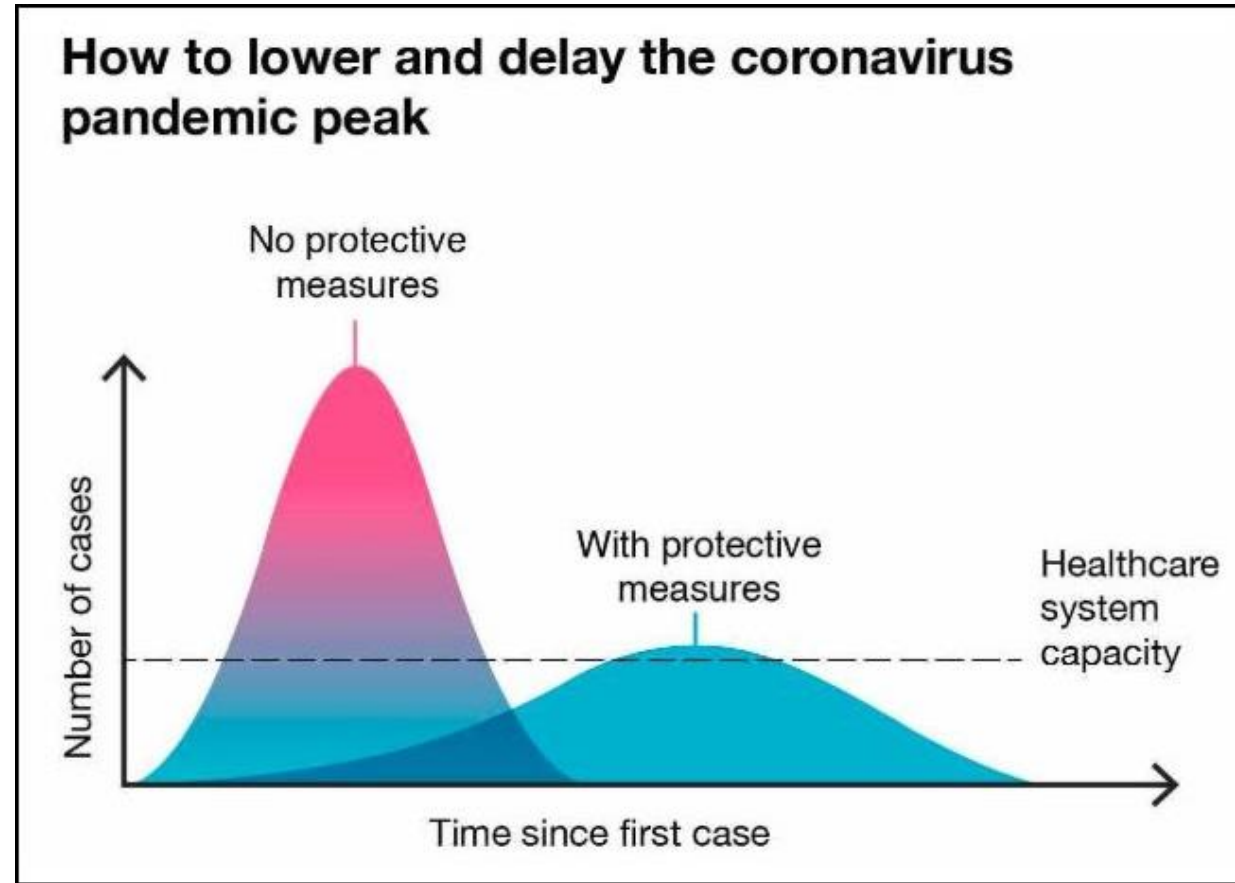
CoVID-19 Information

Keep up-to-date by visiting sixcountieskpa.org.uk and using the links given

Find your local branch providing patient support

Join the SCKPA today!
Print a membership form

more >>

Get information on kidney disease, treatments & organ donation

Dialysis holidays & reviews

more >>

Help raise funds with our lottery, by donating or remembering us in your will

Take Sidney on holiday

more >>

Check out our quarterly magazine VIVA! full of useful information and articles

Life threatening bleed

more >>

Coronavirus COVID-19:

○ Oxford has issued a patient leaflet with advice on how to manage the virus. Click here for the leaflet and a letter from Allie Thornley

○ for the latest NHS advice and when to dial 111, click here

○ up-to-date Government advice on the current situation in the UK and information about COVID-19 and its symptoms, click here

○ Coronavirus Action plan, published on March 3rd 2020 by the Government, click here

New renal ward
March: work has been halted as the old transplant ward is being set up as an emergency dialysis and treatment centre for kidney patients suffering from coronavirus
February: transplant ward moves into its new area in the PFI building.
6th Jan: work started to prepare the area for the move of the renal/transplant wards to the PFI building. Click for the press release
18th Dec: OUH Foundation Trust announced that building work will commence in January 2020.

London Bridges Walk organised by Kidney Research UK : Sunday 19th July - join a group from SCKPA. See below for details.

World Kidney Day: 12th March 2020

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