The Heart
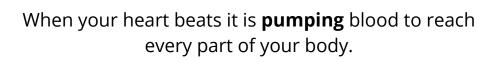
Your heart is to left of the middle of your **chest**.

It is about the same size as your **fist**.

The heart is made of strong **muscle**.

When your heart beats it is **pumping** blood to reach every part of your body.

Blood vessels are tiny tubes that carry blood to and from the heart all around the body.

We have two main kinds of blood vessels called **arteries** and **veins**.
- Arteries carry blood away from the heart. Arteries are red.
- Veins carry blood to the heart. Veins are blue.

Did you know?   Your heart beats over 100, 000 time per day!

Irish Heart Foundation
The National Stroke & Heart Charity

Measuring Heart Rate

- When we are active, the heart pumps faster to help blood move around our bodies more quickly.
- As the heart beats and pumps blood around your body, you can feel a slight throbbing or thumping in some parts where an **artery** (blood vessel carrying blood from the heart around the body) comes close to the surface of your skin.
- This is called your pulse.
- Checking your **pulse** can tell you how fast your heart is beating; this is called your **heart rate**.
- The heart rate is measured in **beats per minute**, sometimes shortened to **BPM**.
- There are two main places where the pulse can be felt; the neck and the wrist.

Taking Your Pulse

Neck

- Put two fingers of your left hand onto the side of the windpipe in your throat.
- Push down gently and you will find your pulse which feels like a small 'thump' (you can feel it going up and down).
- It can be a bit tricky to find, so you may have to try moving your fingers around to find the right spot.
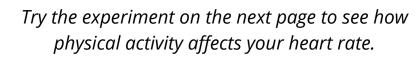
Wrist

- Using the pointer and middle fingers of your right hand, slide from the base of your left thumb (the squishy part of your palm) to where your hand meets your wrist.
- You might need to move the fingers around until you find the right spot.

Note: Make sure to use your fingers to take your pulse and not your thumb.

When you have found the pulse, count how many times you feel it while timing 30 seconds. Multiply your score by 2 to calculate your heart rate in beats per minute (BPM).
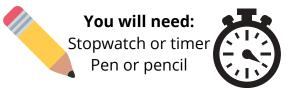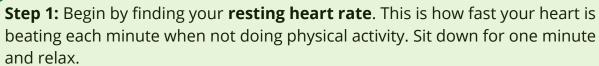
Try the experiment on the next page to see how physical activity affects your heart rate.

Irish Heart Foundation
The National Stroke & Heart Charity

Pulse Experiment

How does physical activity affect the heart rate?

You will need:
Stopwatch or timer
Pen or pencil

Step 1: Begin by finding your **resting heart rate**. This is how fast your heart is beating each minute when not doing physical activity. Sit down for one minute and relax.

Step 2: Set a timer for 30 seconds and take your pulse on the wrist or neck. Record this number in the table below and multiply it by 2 to calculate your resting heart rate.

Step 3: Jog on the spot for 30 seconds. Set your timer and take your pulse again for 30 seconds. Record and calculate beats per minute.

Step 4: Rest for one minute to allow your heart rate to slow down again.

Step 5: Continue doing the actions in the table below for 30 seconds, then taking your pulse to find BPM. Ensure you take one minute of rest after each time you take your pulse.

Name of activity	Length of activity	Beats counted in 30 seconds	Heart rate Beats per minute (BPM) *Multiply by 2 to calculate beats in 60 seconds*
Sitting	60 seconds		X 2 = _____ BPM
Walking	30 seconds		X 2 = _____ BPM
Throwing and catching a ball	30 seconds		X 2 = _____ BPM
Stretching	30 seconds		X 2 = _____ BPM
Star jumps	30 seconds		X 2 = _____ BPM
Running as fast as possible on the spot	30 seconds		X 2 = _____ BPM

Resting heart rate

- Which actions resulted in the highest heart rate?
- Which resulted in the lowest?
- Why do you think this might be?

Irish Heart Foundation
The National Stroke & Heart Charity